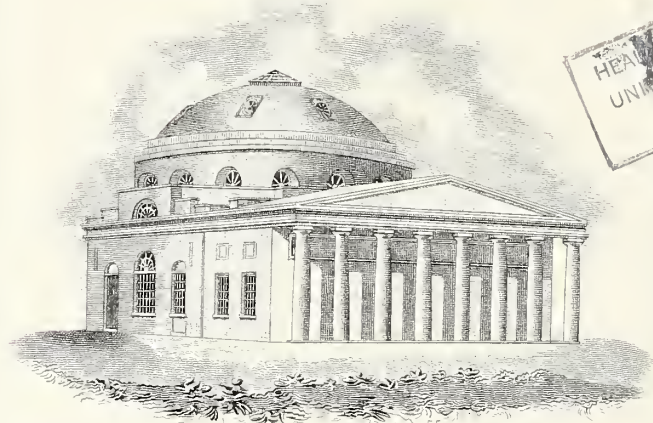




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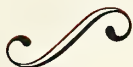
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### TOPIC OF THE MONTH PNEUMONIA



SECRETARIES'  
CONFERENCE  
JANUARY 22

Program on Page 24

### Contents

#### ORIGINAL ARTICLES

The Role of Serum and Oxygen in Pneumonia. M. Herbert Barker, M.D., Chicago.....	1
Pneumonia, A Public Health Problem. W. J. McConnell, M.D., New York City.....	4
Pneumococcus Typing. Wemple Dodds, Crawfordsville.....	5
Hospital Anesthetic Organizations. By Henry S. Ruth, M.D., Philadelphia.....	7
Cystitis in Women and Children. Herman L. Kretschmer, M.D., Chicago.....	11
The Normal Infant. Indiana Pediatric Society.....	15
Anti-Streptococcic Serotherapy in Agranulocytosis. Recovery of Two Cases. John L. Emenhiser, M.D., Hammond.....	17
Clinical Experiences with Sulfanilamide. By William N. Wishard, Jr., M.D., H. G. Hamer, M.D., H. O. Mertz, M.D., R. C. Rauscher, M.D., Indianapolis.....	19
General Practitioner Remembers that the Child Has Emotions. Stewart Richard Smith, Indianapolis.....	21
Marijuana. James W. Jackson, M.D., Indianapolis.....	24
Perforations in the Abdomen. John F. Habermel, M.D., New Albany.....	25

#### EDITORIALS

Pneumonia.....	28
Our County Societies and the Year's Work.....	29
That Marriage License Commission.....	29
Topic of the Month.....	30
Postmortem Examinations.....	30
Editorial Notes.....	31

#### SPECIAL ARTICLES

Secretaries' Conference.....	34
President's Page.....	35
Middletown Modernizes Medicine — Delaware-Blackford County Plan.....	36
Care of the Premature Infant in the Rural Areas in Indiana.....	39
Diphtheria Immunization.....	40
Employment of a Full Time Executive Secretary for the County Medical Society.....	40

#### MISCELLANEOUS

Deaths.....	41
News Notes.....	42
Indiana University News Notes.....	45
Books.....	45
Societies and Institutions.....	
Woman's Auxiliary.....	46
County Society Reports.....	47
Indiana State Board of Health.....	50



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### THE ROLE OF SERUM AND OXYGEN IN PNEUMONIA\*

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Chicago

Pneumonia leads all other infectious diseases as a cause of death. According to insurance company statistics, Indianapolis citizens may expect about 200 deaths from this disease during the coming year, while Chicago may expect 2,200 pneumonia deaths. Since this disease strikes its greatest toll from the middle-aged group, it takes men and women from their homes and their gainful occupations when they are most urgently needed. It is obvious that it is not only a matter of misfortune to the individual family, but the social responsibility is soon to be felt by the rest of the community if the life of the head of the family is taken. Because pneumonia usually results from inattention to the common cold, neglected lower respiratory tract infections, overwork, fatigue, exposure and loss of sleep, prevention of this disease should be the most direct attack upon the problem. The family physician thus has the greatest opportunity to arm the American public against a disease which has claimed 100,000 of its citizens each year. With the present great wave of interest that the public has shown in general health measures, prophylaxis will become a more fruitful program.

As for the care of the person who has developed pneumonia, three factors have been demonstrated to materially reduce the mortality, and they are, first, the early diagnosis of the disease; second, prompt typing of the pneumococcus responsible for the disease and the administration of adequate specific type serum to all cases where it may be given and, finally, the early, adequate and continuous administration of oxygen therapy to all cases of pneumonia until the disease has run its course.

\* Presented before the General Meeting of the Indiana State Medical Association at Indianapolis, October 5, 1938.

† From the Pneumonia Service of Passavant Memorial Hospital, Chicago, and the Department of Experimental Medicine, Northwestern University Medical School.

#### EARLY RECOGNITION OF PNEUMONIA

Since the onset of pneumonia varies greatly, one must be alert to a beginning only with symptoms of shock, nausea, vomiting and abdominal cramps, urinary tract crisis, convulsions or coma, besides the classical onset of pain in the chest, cough and blood-tinged sputum. Only 10 per cent of victims admitted to the Pneumonia Service of Passavant Memorial Hospital in Chicago during the past ten years have shown what is commonly called a "typical onset." The majority have been noted in the persons who have had a protracted cold which has merely "grown worse." Because the physical findings of consolidation do not appear until the third or fourth day of the disease, in the majority of cases, one must make a diagnosis of pneumonia long before these signs develop, if he is to make the proper use of serum therapy. He will, therefore, make the diagnosis by the combined use of his clinical acumen, blood counts, sputum studies, urinary examination, blood culture and x-ray studies of the chest. Thus, the diagnosis of pneumonia by exclusion is urged until developments disprove it.

It has been stated, and it must be repeated, that pneumonia is one of the great medical emergencies. It demands aggressive attention, just as does the acute appendix, perforated ulcer, diphtheria or coronary occlusion. In all these disorders mortality is increased with lack of recognition of the process and the omission of early adequate care.

#### TYPE SPECIFIC SERUM THERAPY

Time does not permit more than a brief review of serum therapy, and reference to these articles will suffice. Thirty groups cover 99 per cent of all pneumococcus pneumonia. The 7,106 cases collected by Plummer<sup>1</sup> indicate that the total incidence for types I, II, III, IV, V, VII, and VIII covers 75 per cent of all cases, type I accounting

<sup>1</sup> Plummer, N.: Use of Serum in Treatment of Higher Types of Pneumonia. *J.A.M.A.* 111:694, (Aug. 20) 1938.

for 26.3 per cent. Types II, III, IV, V, VII, VIII and XIV each run between 7 and 10 per cent (excepting type IV which is 4.4 per cent) and account for 30 per cent of all the pneumonias. The therapeutic value of serum has been well established, especially in types I and II. The mortality in type I has an accepted reduction from 25 per cent to 11.1 per cent, and type II from 41 per cent to 27.2 per cent.<sup>2</sup> Further reductions of mortality may be expected, as indicated by the recently reported series of 230 cases by Blankenhorn and his co-workers,<sup>3</sup> who show a mortality of only 8.2 per cent, contrasted with their expected death rate of 34 per cent. The recovery of 96.3 per cent reported by Horsfall et al.<sup>4</sup> on not only types I and II, but with types V, VI, VII, VIII, XIV, and XVIII as well. A reduction in mortality of types V, VII and VIII from 27.2 to 16.9 in a series of 569 cases collected by Plummer<sup>1</sup> shows the distinct value of early specific serum treatment, but his series of 561 cases of types IV to XXXII shows a mortality of 25 per cent, and 302 of the best responding types, namely IV, V, VII, VIII and XIV, show a mortality of 20.2 per cent as compared to 25.2 per cent in the group that did not receive serum. This indicates that serum for the higher types must be improved before the men in general practice may assume an aggressive attitude, but such improvements may be anticipated.

The refinement and concentration of both horse and rabbit serum has resulted in a high concentration of anti-pneumococcic material, and they are almost entirely free from reaction. However, the testing for sensitivity to the serum must be done on every patient before therapeutic doses may be given. The absence of reaction to the ophthalmic test, consisting of placing 1 drop of 1:10 dilution of the specific serum in the lower conjunctival sac, usually indicates no notable sensitivity on the part of the patient, and the serum may be given. However, it is considered highly desirable to give .1 cc. of the serum intracutaneously and if no reaction occurs, give .1 cc. intravenously, and if no drop in blood pressure or rise in pulse occurs within one hour, the serum may be given. The serum should be given into a physiological salt solution set-up (*without glucose*) which has been running freely. The system may be washed out by the saline solution after the serum has been given. A total of 200-300 cc. of physiological salt solution may be used in this operation. If more fluid is to be given, a switch to 5 or 10 per cent glucose solution has been advisable in our experience. Unpublished data from our laboratory shows

that although chlorides are needed early, if the blood chlorides approach normal, additional sodium chloride promotes an edema of the lung, and the mortality is sharply increased. It is important to remember that glucose solution may destroy the anti-pneumococcus serum so that the two should not be administered simultaneously.

In brief, when the patient suspected of having pneumonia is first seen, and the early or presumptive diagnosis has been made, the sputum is to be typed, a blood culture taken, a history of allergic hazards is obtained, and an x-ray of the chest should be made to establish a questionable case and to determine multiple lobe involvement. When the typing has been completed, the serum sensitization tests are to be done and the serum is to be administered as soon as possible.

The total dosage of anti-pneumococcus serum and the matter of size of individual amounts are points which are not yet fully established. Our own policy has been to give 20,000 to 50,000 units and to follow this with 100,000 units in three hours, and repeat each six hours until a definite response to toxicity, pulse, temperature and respiration is obtained. However, Loughlin et al.<sup>5</sup> have found it possible to give the entire calculated dose at once, even as much as 500,000 units. Their technic is worthy of further consideration for several reasons. The individual amount of serum required varies greatly (50,000 to 900,000 units) but the average requirement seems to be about 300,000 units. A distinct increase over the average dosage is recommended to the following patients: persons with septicemia, those over 50 years of age, multiple lobe involvement, during pregnancy, in diabetes, and to persons with other infections. In all these conditions, the serum dosage should be doubled or trebled. When early and adequate amounts of specific serum are administered, the toxemia may be promptly decreased, with a decrease in the pulse, temperature and respiratory rate. A sterilization of the blood stream and recovery may thus occur with a significant reduction of the expected mortality. It is evident that specific type serum therapy of pneumonia is established, and it should be pressed until some better method is developed. To this end, the health departments of various states, including Indiana, have taken great steps in the establishment of pneumonia typing stations, and accepted specific sera are held available to the physician who may have need of it. The interest on the part of the United States Public Health Service should further the whole program. To date the concentrated horse serum has not been replaced by the new rabbit anti-pneumococcus serum in the work of the Federal Government. More work is needed before the question of whether the horse or rabbit serum is more desirable is decided, and whether or

<sup>2</sup> Lord, F. T., and Heffron, Roderick: *Pneumonia and Serum Therapy*. Revised Edition, New York, Commonwealth Fund, 1938.

<sup>3</sup> Blankenhorn, M. A.: *The Present Status of Lobar Pneumonia*. *J.A.M.A.* 111:1260, (Oct. 1) 1938.

<sup>4</sup> Horsfall, F. L., Jr., Goodner, K., and MacLeod, C. M.: *Antipneumococcus Rabbit Serum as a Therapeutic Agent in Lobar Pneumonia: II Additional Observations in Pneumococcus Pneumonias of Nine Different Types*. *New York State J. Med.* 38:245, (Feb. 15) 1938.

<sup>5</sup> Loughlin, Elmer H., Bennett, Richard H., and Spitzer, Samuel H.: *The Treatment of Lobar Pneumonia with Rabbit Anti-Pneumococcus Serum*. *J.A.M.A.* 111:497, (Aug. 6) 1938.



not the single large calculated dose may be given to each case so that the disease may be promptly terminated.

#### EARLY ADEQUATE CONTINUOUS OXYGEN THERAPY

Although oxygen therapy of pneumococcic diseases, with its obvious symptomatic relief, dates from the Pneumonic Institute of Herman Beddoes, its use in pneumonia is still withheld too often until cyanosis or terminal symptoms of the disease have developed. The ravages of prolonged systemic anoxia have been shown experimentally to produce severe widespread changes in all the organs of the body, which makes anoxia, as such, a disorder which should have prompt and vigorous attention. Since practically every patient with pneumococcus pneumonia shows a moderate to a severe degree of oxygen desaturation of the arterial blood, routine oxygen therapy should be a physiological support of the first order to almost every patient suffering with pneumonia. With these points in mind, such an attitude was assumed in the Pneumonia Service of Passavant Memorial Hospital, and every person who was diagnosed as or suspected of having pneumonia was given an oxygen enriched atmosphere of such degree as to saturate the hemoglobin of the arterial blood to 95 or more per cent. It was found that any method that would raise the alveolar oxygen saturation to 50-65 per cent was usually adequate, whether the oxygen room, oxygen tent or nasal catheter method was used. This required an atmosphere in the room or tent enriched with oxygen to 55-70 per cent and a 10-12 liter per minute flow by the nasal catheter method.<sup>6</sup> At first it was rather difficult to bring ourselves to administer oxygen to the patient who did not appear to be very ill. However, the control series, together with the common observation that the patient who is severely ill at the onset of his pneumonia usually seemed to right himself for three or four days, after which he became progressively worse, encouraged us to adhere to the early adequate routine oxygen therapy program. Not only were the symptoms of restlessness, delirium, rapid pulse and respiration, abdominal distension, cough, and extension to other lobes relieved, but mortality seemed to be materially reduced.

Since the amount of clinical material required to establish the suggested value of early adequate oxygen therapy must be very large, and since the virulence and mortality of pneumonia varies from year to year, our experimental pneumonia study of this point was instituted. The white rat lends itself well to the production of an experimental pneumonia, so that a series of 100 rats was given types I and II lobar pneumonia after the technic of Jourdonais and Nungester.<sup>7</sup> One-half served

as controls, and all were dead by the fourth day. Autopsy of every rat showed an extensive lobar pneumonia. The remaining half were simultaneously placed in an oxygen chamber containing an atmosphere of 50 per cent oxygen. No attempt will be made to comment on the details of this work, except to point out that the death rate line per day was sharply curved away from that of their fellow controls in normal air, and the oxygen treated group showed a fifteen per cent recovery from the disease. Such sharp experimental support of oxygen therapy caused us to continue these studies and, in brief, it was shown that 50-65 per cent oxygen saturation of the atmosphere surrounding the pneumonic rat and dog seemed to be optimum for the preserving of life until the animal's own defense mechanism was able to bring the disease under control. The disease was not shortened nor were the complications reduced. In fact, prolongation of life permitted extensive complications of pericarditis and empyema, but with all of these, 15 per cent recovered, whereas 100 per cent of the controls had died.

Clinical and experimental studies have further shown that it may be extremely important to maintain the red blood count above 4,250,000. The destruction of red cells may be very marked after the third or fourth day, so that the absence of cyanosis or "pale cyanosis" is more common. It is useless to expect oxygen therapy to be of any value unless there is adequate hemoglobin to carry it to the tissues. It has become our practice to make daily red cell counts during the course of pneumonia, and to give blood transfusions as often as necessary to carry the red cell count over 4,250,000.

Our clinical results with oxygen therapy coincide quite well with the report made recently by Faget and Morten<sup>8</sup> whose patients in the Norfolk U. S. Marine Hospital were given oxygen from the time of the diagnosis of lobar pneumonia during the past five years, which show a reduction of the mortality rate from 32.65 per cent of the preceding five years to 18.75. Of course more evidence is needed to clearly establish the role of oxygen therapy in pneumonia, but until serum or chemotherapy are more generally applicable and effective in all types, proper early adequate oxygen therapy should be considered in every case.

#### SUMMARY

The points to be emphasized in the case of the patient ill with pneumonia are that it is an acute, self limited disease with a high mortality, which may be greatly reduced by (1) early recognition of the disease; (2) prompt pneumococcus typing and adequate early administration of accepted specific serum; (3) early and adequate physiological oxygen support to prolong the patient's life until he can muster antibodies sufficient to arrest the disease.

<sup>6</sup> Barker, M. H., Parker, D. M., and Wassel, George: Nasal Catheter Administration of Oxygen. *J.A.M.A.* 103:244, 1934.

<sup>7</sup> Jourdonais, L., and Nungester, W. J.: Intratracheal Inoculation in the Rat. *Science* 81:74, 1935.

<sup>8</sup> Faget, G. H., and Martin, W. B.: The Oxygen Therapy of Pneumonia. *Ann. Int. Med.* 12:32, (July) 1938.



## PNEUMONIA. A PUBLIC HEALTH PROBLEM\*

W. J. McCONNELL, M.D.†

New York City

Among the acute infections, pneumonia is the most common and the most destructive of lives. It is the third most common cause of death, out-ranked only by heart disease and cancer. Each year on the average it takes a toll of 136,000 lives in the United States. We can assume, therefore, that within the present year about 130,000 people in the United States will die from pneumonia, unless these individuals see their doctors during the initial stages of the disease and receive treatment in the light of modern methods.

Pneumonia rarely develops in the physically sound and healthy body. It is the sequel to the common cold, severe sinus infection, influenza, malnutrition, and chronic infections which lower the resistance of the patient. Changes in the resistance of the host is an important factor and in many instances may be the most important influencing factor.

Pneumonia in the great majority of cases is caused by some type of pneumococcus. Only a small percentage of pneumonias are caused by the streptococcus and Friedlander bacillus, and a still smaller number are caused by the staphylococcus and influenza bacillus. The original studies of Cooper, Edwards, Rosenstein, Walter and Prizer classified the pneumococci into thirty-two biological types. Since then, only two of the original thirty-two types have been dropped, namely types XXVI and XXX, the former cross agglutinating with type VI, and the latter cross agglutinating with type XV. The remaining thirty types of pneumococci are responsible for over ninety-five per cent of the pneumonias. In most years and in most communities type I is the most prevalent of these types and accounts for about a third of all lobar pneumonias.

The fact that we can now determine the germ, as to type, which is responsible for the disease is the key to the successful treatment of a great number of cases of pneumonia. Specific serum for the treatment of types I and II pneumococcus pneumonia has proved so effective that it is generally accepted now as the standard procedure. Serums for types IV, V, VII, and VIII, also, have been prepared. These have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association. At the present time serum is being used for types III, VI, XIV, and XVIII, as well as for the above types.

Until quite recently most of the pneumonia serum used in this country had been prepared by the inoculation of horses. Rabbit serum at present is receiving considerable notice. The chief differ-

ences reported are that all rabbits will develop antibodies satisfactorily, while approximately only half of the horses injected develop the immune serum sufficiently to use in therapy, and, further, while the average horse requires two years after infection, the rabbit requires a much shorter time and its antibody molecule is about one-fourth the size of the horse molecule. Improvement in both horse and rabbit serums has reduced the severe reactions formerly produced following injections of the serum. Preparations that are highly concentrated and almost entirely free of reaction-producing substances are now available.

Experience has shown that specific pneumonia serum, when given early and in sufficient doses, will lessen the mortality rate of this infection. So convincing have been the results obtained by serum treatment for pneumococcus pneumonia that public health authorities in about thirty of the states are now engaged in various degrees of pneumonia control. The results of some studies being conducted by the pneumonia control services of Massachusetts and New York have already been published. The Massachusetts study, covering the years 1931 to 1936, during which period 724 special cases of type I pneumococcus pneumonia were given serum treatment within ninety-six hours, reveals that the deaths per 100 cases amounted to 10.9; in New York State, 1936-1937, there were 13.5 deaths per 100 cases among a group of 1,451 cases of type I pneumococcus pneumonia treated with the serum during the first four days of illness. Compared with a death rate of 25 per 100 cases among a group of 1,614 cases of type I pneumococcus pneumonia, in which no serum was given, collected in the United States and Canada,\* the improved mortality rates obtained in Massachusetts and New York fully justify a wider adoption of pneumonia programs in those communities having a pneumonia problem. Cases collected from the literature of serum-treated pneumonia of the higher types appear to show that the mortality rate for these types likewise can be reduced.

Unlike previous public health procedures which have so successfully controlled the prevalence of such infections as diphtheria, typhoid fever and tuberculosis, the routine control measures for pneumonia are directed chiefly toward the reduction of mortality rather than morbidity. Thus far, the use of vaccine in the C. C. C. and Army groups, while promising, is still in an experimental stage. Whether the synthetic vaccines or antigens, which are wholly chemical in nature, will prove more successful remains to be seen.

The preventive features of a pneumonia control

\* Read before Conference of Indiana Health Officers, October 4, 1938.

† Assistant Medical Director, Metropolitan Life Insurance Company.

\* From Final Report, Massachusetts Pneumonia Study, 1937.

program consist essentially of educational measures directed toward the avoidance of the common predisposing factors in pneumonia, the proper care of colds and the necessity of quickly procuring medical and nursing assistance in the event symptoms or signs suggesting severe respiratory infection develop. Use should be made of all the usual channels for spreading information. Popular articles on the subject of pneumonia can be prepared for publication in newspapers or magazines, as can addresses, radio-talks, posters, hand bills, health exhibits, and motion pictures. The importance of suitable nursing care can be stressed, as may the fact that for some pneumonias a helpful serum is available.

The promotion of educational projects among professional groups on matters pertaining to pneumonia; the availability of specific antipneumococcus serum; the establishment of bacteriologic typing stations; and provision for obtaining blood

cultures should be included in any comprehensive plan for a pneumonia program.

Information relating to the treatment of cases of pneumonia which are not suitable for specific therapy should be supplied to the professional groups. One of the measures most widely used is oxygen. It is particularly indicated in cases of arterial anoxemia. Quinine or one of its derivatives still enjoys a considerable reputation, and McLaughlin and his associates in Pittsburgh suggest that its story has not yet been completely told.

While it is too early to judge the value of the newly synthesized sulphonamide compound in the treatment of pneumonia in human beings, the experimental work of Whitby shows almost complete protection afforded against pneumococcal infections of types I, VII, and VIII and a high degree of protection against II, III, and V. The New York State Health Department Laboratories, I am informed, are experimenting with this therapy.

## PNEUMOCOCCUS TYPING

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The major step in the procedure of typing the pneumococcus is probably the obtaining of a suitable specimen of sputum. The responsibility for this should devolve upon the physician. Every physician should realize that pneumonia is a major emergency, requiring the same care and attention that any other medical or surgical emergency would require. Certainly if the physician elects to employ serum in the treatment of pneumonia, he must realize that the success of the entire program rests on the sputum examination. Relegation of the sputum collection to the nurse or to some member of the patient's family will often result in failure to type the pneumococcus because of an entirely unsatisfactory sputum specimen. Even worse is the practice of placing a sputum cup at the bedside and instructing the patient to expectorate into the cup. The specimen will usually consist almost entirely of saliva and will not contain the desired lung exudate. It is clearly the duty of the physician to attend to this important detail and with proper care no difficulty should be experienced in the majority of cases.

It will be found helpful to place the patient on his side with the affected lung uppermost so that the lung exudate can gravitate into major bronchi from which it may be coughed. By coaching and demonstrating to the patient how to cough so as to obtain material from the bronchial tree, success will almost always be attained. A small bit of thick, tenacious sputum the size of a pea obtained from the bronchial tree is far more useful than a whole cupful of saliva. In small children who will

not refrain from swallowing the sputum as soon as it reaches the throat, it may be necessary to obtain the specimen by means of a swab placed as far into the larynx as possible, and if this fails aspiration of the stomach contents may be necessary.

If in spite of the above measures a specimen cannot be obtained, the pneumococcus may be obtained by blood culture. Lung puncture has been advocated as a certain method of obtaining the infecting pneumococcus. The procedure seems to be associated with little danger but in the vast majority of cases will be unnecessary and typing from the sputum will be correct in a high percentage of cases.<sup>1</sup>

The laborious task of typing the pneumococcus by the older methods is being rapidly superseded by the much faster and technically easier Neufeld method.<sup>2</sup> This method has been popularized by Sabin<sup>3</sup> and because of its relative simplicity it may with suitable attention to details be used in the physician's office. One with experience in microscopy, possessing a good microscope and sufficient patience to attend to the details of technique, will be able in the majority of cases of pneumococcal pneumonia to type the organism correctly. Cer-

1 Bullowa, J. G. M., Somers, M., and Turner, E.: The Reliability of Sputum Typing and Its Relation to Serum Therapy. *J. A. M. A.* 105:1512, 1935.

2 Neufeld, F.: Veber die Agglutination der Pneumokokken und über die Theorien der Agglutination. *Ztschr. F. Hyg. u. Infektion skr.* 40:54, 1902.

3 Sabin, A. B.: Immediate Pneumococcus Typing Directly from Sputum by the Neufeld Reaction. *J. A. M. A.*, 100, 1584, 1933.



tainly a physician situated in a locality where a clinical laboratory is not available is warranted in attempting the procedure. It must be stated, however, that some little experience is required to attain a high degree of accuracy.

The first step is to prepare a smear of the sputum and to stain by Gram's method. This is invaluable in deciding whether a suitable specimen has been obtained and also in surveying the bacterial flora contained in the sputum. Many times unnecessary attempts to type the pneumococcus will be avoided in this way. If the bacteria found are predominantly streptococci or staphylococci, it will be obviously impossible to obtain a positive Neufeld reaction. It should be borne in mind that type III pneumococcus frequently forms fairly long chains and in case of doubt the Neufeld test should be carried out.

As originally described by Sabin, the sputum and typing serum were examined in a hanging-drop chamber. It will be found somewhat more convenient to use ordinary microscope slides and cover slips. Some difficulty in focusing may be experienced with the latter method if the immersion oil used is too thick since the cover slip will be dragged with the lens as the mechanical stage of the microscope is moved back and forth. By diluting the ordinary immersion oil with xylol or by using clear liquid petrolatum this difficulty may be avoided.

A small particle of the sputum is placed in the center of a cover slip and mixed with a drop of the typing serum. It is important to use a small quantity of the sputum particularly when the sputum is thick and tenacious since if too much is used the cover slip cannot be pressed closely against the slide without breaking the slip. Too thick a preparation beneath the slip results in the cover slip "floating" on the preparation with consequent difficulty in observation. Addition of a small loopful of methylene blue will aid greatly in identifying bacteria and the positive Neufeld reaction. Convenient capillary tubes containing a mixture of typing serum and methylene blue are being marketed. They are fitted with small rubber bulbs which facilitate expression of the serum from the capillary tubes. In some cases the color of the methylene blue will be faded in which case a small loopful of methylene blue may be mixed with the serum and sputum on the cover slip.

After thorough mixing of the serum and sputum, the cover slip is inverted on a slide. Observation under the oil immersion lens is commenced after five minutes. Under ordinary circumstances the capsule of the pneumococcus is very difficult to observe. It may be seen as a faint halo around the organism with a hazy indistinct margin and with experience the differentiation of this appearance from a true positive Neufeld reaction is easy. A positive reaction consists of a swelling of the outer zone of the pneumococcus. This zone becomes quite prominent and presents a character-

istic "ground glass" appearance under the microscope. Its margins are sharp and clear-cut and it is this appearance which characterizes the reaction, rather than the degree of swelling. It is to be sharply distinguished from the normal capsule of the organism and from a false reaction resulting from improper illumination. The light should be subdued and carefully adjusted to eliminate the halos of light appearing about the organisms. These halos will not come into sharp focus and they differ greatly from the sharp distinct margins of the swollen capsules in the case of a positive Neufeld reaction. Sometimes the reaction is somewhat slower, in which case a more prolonged period of observation may be necessary and the specimen may be re-examined after thirty minutes.

Examination of sputum by this method with the 32 types of serum may become an arduous task. To facilitate the procedure, capillary tubes containing mixtures of several monovalent serums may be purchased. When a positive reaction is obtained with the mixed serum, the sputum is tested with each of the monovalent serums contained in the mixture. In this way the process may be considerably accelerated.

In observing the preparations, it is advisable to note whether all the pneumococci give the positive reaction. In some cases, particularly when two or more lobes of the lung are involved, two or more types of pneumococci may be found. In such cases it will be necessary to administer the corresponding therapeutic sera. It should also be borne in mind that when a fresh extension into a lobe or perhaps another lobe of a lung occurs it is wise to re-examine the sputum to determine whether a new type of pneumococcus is implicated.

When purchasing serum for the purpose of the Neufeld test, it is important to remember that the serum is obtained from the rabbit, and that ordinary typing serum or therapeutic serum will not be suitable for the test. These sera keep well at ice-box temperature but should not be used after the expiration date specified by the manufacturers.

The Neufeld reaction can be observed in pleural exudate, peritoneal exudate, spinal fluid, culture medium, and in fact in any fluid substance in which the pneumococci are sufficiently numerous to be observed directly. This fact adds greatly to the usefulness of the method. In cases where it has been necessary to obtain the pneumococci by blood culture and the organisms are not very numerous during the first few hours of culture, a sufficient number may be observed even after four hours of incubation to permit of typing by the Neufeld method. This is a marked contrast to the older methods with which the final laboratory report was rendered so late that the patient had either recovered or was *in extremis*.

At the present time, serums for Types I to VIII pneumonias are easily obtained and several other serums of the higher types are available from



certain depots. One manufacturer at least has promised serums for all 32 types within a short period of time. As a consequence, the plan described previously<sup>4</sup> has been modified so that at the present time all pneumococcal pneumonias are being typed specifically rather than to discontinue the attempt at specific typing when it was found that the organism belonged to a group for which

no therapeutic serum could be obtained commercially. If the physician does not wish to purchase such an elaborate outfit, the purchase of typing sera for Types I to VIII will permit a classification of at least 85 per cent of his cases of pneumococcal pneumonia and since at least 85 per cent of pneumonias are of pneumococcal etiology<sup>5</sup> he will be able to type correctly the majority of his cases.

<sup>4</sup> Dodds, W.: Pneumonia from the Standpoint of the Laboratory Man. *J. of the Ind. State Med. Assn.* 31:113, 1938.

<sup>5</sup> Editorial, Pneumonia Mortality and Pneumococcus Typing Facilities, *J. A. M. A.*, 109:1910, 1937.

## HOSPITAL ANESTHETIC ORGANIZATIONS\*

### A CONSIDERATION OF THE VARIOUS AVAILABLE TYPES

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The problem of anesthesia is occupying the attention of the authorities of numerous institutions throughout the country whose functions include the surgical care of the sick. It is their intention to improve the anesthetic service to patients and surgeons. The increased activity in this direction has been instigated by manifold factors, the majority of which are now, I believe, generally well understood. Many of those hospitals which have no organized departments of anesthesia are considering obtaining, or have decided to engage, the services of one or more medical specialists in anesthesia. Others, whose anesthetic personnel includes both physicians and technicians, are desirous, to a certain degree, of increasing the number of physician anesthetists. Evidence of these facts is displayed by the announcements appearing not rarely that positions for medical anesthetists are available in widely separated sections. In addition, the directorships of many other institutions are well aware that reformation of their respective anesthetic departments is in order, and it is their wish to accomplish this, but they lack the knowledge of a method of procedure to bring it about.

In order to enlighten those who are not anesthetists, it might be well to define the significance of certain phrases to which allusion is frequently made. An unorganized anesthetic department ordinarily designates a department where the personnel is entirely composed of technicians. An organized anesthetic department signifies one which is manned partially or entirely by physicians well trained in the specialty and which assumes all or the majority of the duties now assigned to such departments. Lay persons with some training in anesthesia may be termed anesthetic technicians or merely technicians. A medical specialist in

anesthesia implies a physician who is devoting his entire or major attention to anesthesia, and has been adequately prepared for its application in the modern concept of the term.

To return to our subject, several factors appear to be handicapping the establishment of anesthetic departments in institutions desiring them. Mainly, it is not well understood just what type of department should be initiated, because, to date, there has not been any standardization along this line. Others do not know from what source they may obtain medical anesthetists. Certain it is that instances are quite numerous where ideas of the economics of the contemplated move are greatly exaggerated. Therefore, it behooves medical anesthetists to prepare themselves to render information and advice along this line to the hospital administrators who request them.

The approach to this problem is such an exceedingly difficult and complicated one that an attempt will be made only to outline some of the outstanding facts. I shall consider, first, the major duties and services of which an anesthetic department should be capable. Second, examples of some of the various types of anesthetic organizations which may be considered, with a few of their respective advantages and disadvantages. Third, how contacts may be made with physicians that are adequately trained, and, lastly, a few words with regard to the economics involved.

#### SERVICES RENDERED BY AN ORGANIZED ANESTHETIC SERVICE

These have been well described many times elsewhere,<sup>1,2</sup> but for purposes of discussing the advantages of the various types of organizations, it may be wise briefly to recapitulate them.

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<sup>1</sup> Ruth, H. S.: The Advantages Offered by an Organized Anesthetic Service. Read before the 71st Session of the W. Va. State Med. Asso., July, 1938. To be published.

<sup>2</sup> Ruth, H. S.: Anesthesia Service, *Anesth. & Analg.* 14:243 (Nov.-Dec.), 1935.

Services are rendered to many departments, but the most intimate is to the surgical department. Responsibility is assumed for the administration of all anesthetics in the operating room and surgical wards. It is implied that the members of the department possess like facility with each and every one of all the various and now numerous agents and methods. Treatment of surgical shock and other emergency measures are initiated and carried out by the anesthetists. Preanesthetic sedation and other indicated medication is suggested. The same holds true for the estimation of the anesthetic and surgical risk. Finally, the selection of the anesthetic agent and method is best managed by consultation with the surgical department.

Services to other departments include:— for the obstetrical department, supplying analgesia and anesthesia, and the prevention and treatment of asphyxia neonatorum. To the medical department is offered therapeutic nerve blocks,<sup>3-4</sup> when indicated, for conditions such as inoperable carcinoma, certain algias, clinical entities where the prominent symptom is that of pain, such as tic douloureux, and injections of the sympathetic chain for both pain and vasospastic conditions. Experience with and knowledge of the pharmacologic action of the sedative drugs is valuable in giving advice toward the best form of sedation through their necessary training. Through training, anesthetists are equipped to treat both convulsions, and overdose from sedative drugs.

In general, anesthetists should be called upon for resuscitative measures,<sup>5</sup> for their knowledge of the absorption and transmission of gases is here invaluable. For the same reasons, gas therapy is placed under the same direction, if the institution is not sufficiently large and wealthy to maintain a separate department for this purpose. Some institutions have found it advisable to place blood transfusions and intravenous therapy under the supervision of the anesthetic department.

Service to the hospital management includes primarily the maintenance of the necessary equipment on a high plane of efficiency and economy in the use of the necessary supplies.

Teaching is quite important in these days of dearth of numbers of well-trained anesthetists. Adequate instruction should be given at least in the fundamentals of the subject to internes, and to the medical students as well, if there is an associated medical school. Additional requirements for teaching are demanded if facilities are available to establish fellowships. A reasonable amount of research on current problems related to the specialty should be expected. If laboratory

investigations are not possible or expedient, at least clinical investigations are indicated. Statistical reports, such as those founded on accurate, intelligent, and conscientious post-anesthetic check-ups are valuable.

#### TYPES OF ANESTHETIC DEPARTMENTS

At this point it should be explained that the types of anesthetic departments as are here described may in many situations not strictly apply to local conditions. Each hospital is a rule unto itself as each will have its own intramural problems. Therefore, certain aspects will require modification according to the circumstances present. Requirements will vary because of many factors, namely, the size of the institution, whether it is large or small; also, whether it is an institution devoted entirely to the care of private patients, or solely for the care of charity patients, or whether a mixed service of these two is maintained. The anesthetic department associated with a medical school has greater responsibility and more duties than those which are unconnected. Hospitals devoted entirely to special practices are a law strictly unto themselves. As a consequence, no definite rule can be set forth, but only guiding major suggestions recorded.

The department which is composed solely of technicians is the least advantageous from a consideration of the greatest number of aspects. Heretofore, it has been the custom to elect, as nominal head of such an anesthetic department, a medical man who may be, and usually is, pursuing some other specialty, and who has little or no knowledge of anesthesia. These moves were necessitated in order to comply, technically, with various state laws. The functions of such a department are confined to the operating room alone, and even there they are limited to the administration of the more common inhalation anesthetics. Technicians cannot satisfactorily diagnose and treat emergency complications. Many of the newer agents and methods should not be employed under such circumstances but, unfortunately, they are too frequently attempted with a lack of proper respect for the safety of the patient. An institution limiting itself to technicians has no knowledge of the advantages of an organized anesthetic department through personal experience. It is believed, from information at hand, that the technicians themselves are becoming more and more desirous of being placed under the direction of a medical anesthetist.

A department composed of technicians but directed by a medical anesthetist offers comparatively greater value. The efficiency of the anesthetics administered by the technicians will be materially elevated through the supervision offered by the director. The degree of advance will rest largely upon the capabilities of the head of the department. In addition, the number of the valuable but more complicated so-called special anesthetic procedures and the usual activities of

<sup>3</sup> Ruth, H. S.: Diagnostic, Prognostic and Therapeutic Nerve Blocks, *J. A. M. A.* 102:419 (Feb. 10), 1934.

<sup>4</sup> Ruth, H. S.: Experimental Nerve Block for the Relief of Pain in Inoperable Carcinoma, *Anesth. & Analg.* 12:108 (May-June), 1933.

<sup>5</sup> Ruth, H. S.: Problems in Resuscitation, *J. Conn. State Med. Soc.* 2:358 (Aug.), 1933.



an anesthetic department outside of the operating room will, perforce, in this instance, be limited to the amount of work of which one man is capable. This type of department is recommended, however, as a stepping-stone to be considered as a temporary measure toward further future progress.

A third type of department is one which is composed of both medical anesthetists and technicians. In this instance, the increased number of advantages offered would depend essentially upon the ratio of physicians to technicians. A ratio may be conceived whereby the so-called "special techniques" of anesthesia would be constantly available in the operating room wherever necessary, and all of the extra operating room activities could be adequately handled by the physicians. Thus, only the routine administration of the more common inhalation anesthetics by the least complicated methods would be undertaken by the technicians. Temporarily, much can be claimed for this type of organization when it is realized that the majority of the limited number of medical anesthetists are needed for the task of heading new departments. Without doubt, it is at least of secondary value.

A type of anesthetic department which is believed to be the best procurable will now be described. It is headed by a chief who has had years of clinical experience, devoting his time entirely to the practice of anesthesia. He has knowledge of the methods of research and has applied or participated in them thoroughly. He should have executive ability and the rare faculty for the proper evaluation of men. Lastly, he should be well trained in the basic sciences as they are applicable to the subject of anesthesia.

His first assistant should have a reasonable amount of clinical experience and should aid in helping in administrative problems. He should have charge of the department's activity in the operating room and be responsible for statistical studies.

The remainder of the personnel should be composed of adequately trained physicians and physicians completing fellowships in the specialty. For the first year, the fellows should be concerned mainly with learning the fundamentals of the specialty in a practical manner, and devote their time largely to anesthetic technique. It is suggested that they devote the second year to research, during which time they should be adequately prepared in the basic sciences as related to anesthesia. In the third year, they may be instructed in the extra operating room services of the department, such as resuscitation, gas therapy, therapeutic nerve block and blood transfusions.

The method of remuneration to anesthetists is often a matter of concern. One system that has been employed places all staff anesthetists on salary and at the same time will allow them to charge anesthetic fees to private patients. This is a most liberal plan and, of course, the one most attractive to anesthetists. Other hospitals

furnish salaries plus a bonus of a certain percentage of fees collected by the hospital. Others offer straight salaries alone. In at least one instance, the salary for the director is furnished by the associated medical school in return for his teaching activities. It should be remembered, in this light, that each laborer is worthy of his hire, and the practice of institutions unfairly profiting through professional services should be condemned.

Some anesthetic departments are composed of anesthetists solely on private fee basis. This system of remuneration can be quite satisfactory, especially if the surgical staff is zealous in protecting the anesthetist's income and urges him to charge fees commensurate with the services rendered. When dealing with patients unaccustomed to medical anesthesia, a few words in explanation of the value of the slight extra charge made to them will do much to eradicate misunderstandings and difficulties in collections. Teaching can be adequately carried out, as well as the anesthesia for charity patients. One workable plan in a large teaching hospital provides for a division of the definitely scheduled operating teaching clinics and emergency surgery between the members of the anesthetic staff.

Certain disadvantages may arise with this latter system. It may be difficult for a young anesthetist to secure a following immediately. Thus, economic pressure may persuade him to do some general practice on the side. The general practice may grow more rapidly than the anesthetic practice, and he may find himself reluctant to release it as the anesthetic portion of his practice grows. He then may become satisfied with the combination, settle into a "rut" with regard to anesthesia, and employ it only as a means of additional income. Under these conditions he may not strive for progress in anesthesia because of his divided interests, and his already satisfactory income, with the result that the type of anesthetic service rendered by him will grossly suffer. It might be a wiser plan, when an institution elects to nominate an anesthetist on a private fee basis, to guarantee him a livable income for a short period at the beginning. Another method might be to demand exclusive attention to anesthesia after a fixed period, if the size of the institution will warrant it. Another vicious practice present at times with anesthesia on a private fee basis, and the anesthetist also doing general practice, is the custom of the anesthetist's "buying" a surgeon's anesthesia through his referred surgical patients. Selection of anesthetists by surgeons upon this basis removes all consideration of the premium of the type of the anesthetic service rendered. On the other hand, competitive private practice of anesthesia, with all attention devoted to the subject, provides an excellent stimulus for self-progress. In this system, particularly, much of its success depends upon the calibre of the personnel.

The administration of the anesthetic by the referring general practitioner who does not devote



additional time to anesthesia is usually not satisfactory. If trained anesthetists are available, and the general practitioner is the type who insists on participating, in order to receive a fee, it appears that it would be more advisable to have him assume the role of second or third assistant. This would slightly increase the patient's expense, but he would usually be repaid by overcoming the danger of being anesthetized by a physician who only on rare occasions administers an anesthetic.

#### OBTAINING THE SERVICES OF MEDICAL ANESTHETISTS

It is not generally known from what source to obtain physicians in order to facilitate the contemplated organization of anesthetic departments. To date, advertisements in national magazines and correspondence with teaching institutions having fellowships have not been entirely satisfactory. The American Society of Anesthetists, Inc., offers a service in this direction through its Committee on Placements. Efforts are made by this committee to list all anesthetists desiring new positions, together with their training and other pertinent data. When an institution requests the committee to suggest an applicant, the requirements of that institution are studied, and the most suitable candidates are suggested. Thus, the institutions are enabled to secure the proper type of anesthetist for the existing requirements and, on the other hand, anesthetists are offered positions consistent with their own capabilities. After a department has been successfully initiated, its growth is usually less difficult. Additional experienced men may be secured, or promising young local physicians may be trained. If fellowships are established and accepted, a plentiful supply of applicants is usually available almost immediately. Young physicians of America in large numbers are quite eager to pursue this rising specialty. It is needless to state that the more efficient the fellowship, the greater the number of applicants will appear.

#### ECONOMICS

It is believed that one of the most detrimental factors toward the establishment of greater numbers of anesthetic departments at this time is an exaggerated fear of the cost involved. It should be rightfully stated that economy should not be the guiding motive in establishing an anesthetic department. Enlarged and more efficient service in any venture usually increases costs. Nevertheless, it is gratifying to note that in the problem of anesthesia just the reverse of this statement has been accomplished in a charity hospital without increased expense.<sup>6</sup> Those hospitals having private services which are reluctant to deprive themselves of the small profit gained through the medium of impaired anesthetic services are guilty of commercialism detrimental to their patients. In addition, the revenue so derived is many times not as material as is supposed, for

poorly trained technicians are notoriously wasteful with expensive supplies.

Organizing an anesthetic department on the basis of salaries or private fees has not unsurmountably increased the costs of so doing to many hospitals which have already reorganized. Where the budget will not allow an increased allotment for anesthesia, in order to meet increased salaries, the fees to private patients for anesthesia may be increased slightly. In addition, it has usually been found that the cost of anesthetic supplies is decreased. When private fees are permitted, the cost of the anesthetic supplies can be incorporated with the operating room charges. It is true that these suggestions may increase the cost of anesthesia to the patient. It has been explained, however, that such valuable services may be procured by an increase of expense to the average patient amounting to only one or two per cent of his entire surgical investment.<sup>1</sup> It is difficult to comprehend a reluctance or inability on the part of any patient to be willing to have his costs increased this small amount when it is done so in the interests of his own safety and welfare, provided the advantages and additional safety factors gained thereby are fully explained to him. This explanation should be advanced preferably by the surgeon. A large portion of the routine clinical work can be maintained with great efficiency through the activities of men or fellowships. These individuals receive but small stipends, for, as in the instance of other specialties, their main recompense is received in post-graduate training.

#### SUMMARY

A brief outline of the services rendered by an organized anesthetic department is presented. Examples of various types of hospital anesthetic organizations are discussed, with consideration given to the question of remuneration to medical anesthetists and the economics involved.

<sup>6</sup> Rovenstine, E. A.: Anesthetic Practices. Organization in a Teaching Hospital, *N. Y. State J. Med.* 38: No. 7 (Apr. 1), 1938.

## ANNUAL SECRETARIES' CONFERENCE

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PROGRAM ON PAGE 34

## CYSTITIS IN WOMEN AND CHILDREN\*

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By the term "cystitis" is meant an inflammation of the urinary bladder characterized by frequency of urination, painful urination, and pus in the urine. It should be remembered, however, that this clinical triad does not always mean cystitis *per se*, and it is because of this fact that a large number of errors in diagnosis occur.

Although cystitis *per se* in the female—either young or old—is an exceedingly rare condition, the triad of symptoms interpreted as indicative of cystitis is common, with the result that the diagnosis of cystitis is made with great frequency but rarely substantiated. Many patients who present themselves with this symptom-complex are incorrectly diagnosed and incorrectly treated, the serious organic lesions that are the real cause of the condition being overlooked until late in the course of the disease when conservative surgery becomes impossible due to the destruction of vital organs.

When symptoms indicative of cystitis are present and no improvement occurs within a reasonable time after medical treatment has been instituted, or when symptoms clear up only to recur at a later period, it becomes imperative that the patient have a complete physical and urological examination. The most important problem that confronts us when dealing with this type of case is not the administration of this or that drug but consists in making an accurate diagnosis to determine the nature and location of the pathology responsible for the symptoms.

### THE HISTORY

The importance of obtaining a good history in each patient who presents the symptoms of cystitis cannot be overemphasized. An accurate history cannot be obtained hurriedly and all too often it is given scant attention. The information obtained more than compensates for the time and labor expended.

One must bear in mind the fact that a patient with symptoms of cystitis may be suffering from a lesion in some remote part of the body—that the bladder symptoms may be an expression of a distant disease process. In this category may be placed pernicious anemia. As an example of a patient belonging to this group, I should like to present briefly the following case:

Patient, female, aged sixty-five years. Six weeks before she was admitted to the hospital, she had marked frequency of urination, pain on urination, and was told there was pus in the urine. A diagnosis of cystitis was made at that time and treatment consisted of internal medication, bladder irrigations with boric solution, and injections of argyrol into the blad-

der. Patient consulted me for the express purpose of having her bladder washed out.

Examination of the urine was negative and the physical examination showed knee-jerks greatly exaggerated. Romberg's sign was positive and the patient had a very unsteady gait. The blood examination showed a typical picture of pernicious anemia.

Diagnosis: Pernicious anemia with secondary degenerative changes in the cord.

Symptoms may be erroneously ascribed to cystitis that are, in truth, due to the presence of a congenital anomaly—a condition that in some cases can be readily ascertained by a careful history. As an illustration of the value of obtaining a painstaking history I should like to present the following case:

Patient, female, aged twenty-seven years, was admitted for the relief of what she had been told was cystitis. She stated that she was unable to hold her urine, that she lost urine between urinations, and that she had been wet all her life. For the relief of her complaints she consulted many doctors and received various forms of treatment without relief. The treatment included urethral dilatation, applications of silver nitrate to the urethra, instillations, irrigations of the bladder and, finally, dilatation of the bladder.

A careful consideration of the patient's statements, namely, that she had never been dry in all her life, and that she was unable to hold her urine between urinations, at once suggested the possibility of an ectopic ureter.

Examination showed the presence of an ectopic ureter just behind the external urethral orifice.

Cure was effected by an hemi-nephrectomy.

The onset of symptoms of cystitis after a surgical operation has great significance. Bladder symptoms following an operation are often attributed to cystitis, treatment is instituted without relief, and the patient begins a pilgrimage from one doctor to another. The patient's statement that the symptoms of the so-called cystitis were absent before the operation should at once direct the doctor's attention to the possibility that the operation may have been a factor in the bladder disturbance. This has been noted at times after operations for uterine displacement and necessitated uncoupling the previous operation.

The history of cystitis by a patient who has spent part of her life in a sanatorium for tuberculosis, or by one who has had repeated attacks of pleurisy or a record of repeated tappings for pleural effusions, must at once arouse our suspicions that we are dealing with a case of renal tuberculosis with a secondary tuberculous cystitis. A thorough clinical investigation should be made in all cases before starting local treatment.

In cases in which the patient gives a history of recurring attacks of cystitis, our suspicions should at once be aroused that some underlying factor is responsible for the recurring attacks and it is of paramount importance for us to determine just

\* Read by invitation at the general session of the 89th Annual Meeting of the Indiana State Medical Association in Indianapolis, Oct. 6, 1938.



what that factor is. Not until it has been determined should treatment be instituted. In a certain number of cases, the recurring cystitis can be traced to pyelitis or to infected hydronephrosis.

In cases of colon bacillus infection of the urinary tract, with symptoms of cystitis, it may be possible to obtain a history of disturbance in the intestinal tract. As a matter of fact, it is surprising how frequently constipation or cathartic colitis is the causative factor; hence the importance of directing attention to the intestinal tract before instituting urological treatment is self-evident.

#### THE PHYSICAL EXAMINATION

The examination should be directed first to the patient as a whole. Although *tabes dorsalis* is rare in the female, the presence of an Argyll Robertson pupil, absent knee-jerks, and the presence of Romberg's sign should at once arouse our suspicions that the cystitis may be one of the manifestations of locomotor ataxia.

Scars in the neck, the aftermath of suppurating cervical adenitis, evidence of active or healed tuberculosis of the lungs, and the presence of an ankylosed joint or scars over bones, the result of long standing suppuration, must be given very careful consideration in the interpretation of every case of so-called cystitis. Nor must it be forgotten that other general disease processes are often associated with frequency of urination.

It is not uncommon to find during the course of the physical examination that the patient suffers from cardiovascular renal disease as a result of which there is frequency of urination both during the day and night. In this group of patients, if the urine is free of pus and sterile on culture, the relationship between the underlying pathology and the cystitis is perfectly obvious. On the other hand, if the urine shows a few pus cells, although grossly clear, and the culture shows colon bacilli, great care and study are needed to arrive at the proper conclusion.

After the physical examination, the local examination is the next step. This should include a careful examination of the external urethral orifice and Skene's glands. The urethra should be palpated and strippings examined for the presence of pus. A catheterized specimen of bladder urine should be obtained.

With the bladder empty, we proceed with an examination of the internal genitalia. Vaginal discharge, so often present, should be carefully examined for the presence of *trichomonas vaginalis*, which are occasionally found in women who are or have been treated for cystitis. The urine also should be examined for the presence of *trichomonas vaginalis*. Next in order is an examination of the cervix and cervical discharge, if present. Finally, a pelvic examination should be done. It is surprising how often, in this group of cases, pathology is found in the uterus, tubes, or ovaries.

One must be careful, however, not to jump at a wrong conclusion and attribute the so-called cystitis to pressure from an enlarged fibroid, for it should be borne in mind that a patient may have two lesions, either of which may be responsible for the condition. Double lesions are of relatively frequent occurrence; for example, I saw one patient afflicted with a fibroid and an elusive ulcer, and another with fibroid and renal tuberculosis. Here, as in any other branch of medicine, great care must be exercised in the evaluation of the physical examination.

Lesions in and about the anus and rectum are often the cause of so-called cystitis. This possibility must be considered in every case before a diagnosis is made.

Lesions of the bowel, such as diverticulitis with peridiverticulitis, may produce bladder symptoms and, here again, unless great care is exercised an incorrect diagnosis is made.

#### THE URINARY ANALYSIS

Having obtained a catheterized specimen of bladder urine before the pelvic examination is made, we proceed to a careful urine examination. When pus has been found in a voided specimen of a female adult or child, nothing other than the examination of a catheterized specimen should satisfy the examining physician.

If the specimen so obtained is negative and a tentative diagnosis of cystitis has been made, it is imperative that the examination should be repeated several times. With symptoms of cystitis present, the urinary examination should determine the presence of albumen, blood, pus cells, red blood cells, casts, and crystals. The urinary sediment should be examined by a methylene blue stain and a Gram stain for the presence of bacteria. Finally, no examination of the sediment is complete without an examination for tubercle bacilli. A part of the catheterized specimen, at the time it is obtained, should be sent to the laboratory for culture.

At this point in the examination of the patient, an appraisal of the mode of procedure may be made. This, I wish to emphasize, is to be interpreted as a consideration of the order in which the next steps are to be carried out—not as a means to avoid them. These steps must be very carefully carried out in this group of cases in order to make an accurate diagnosis and to determine whether we are dealing with a true case of cystitis or with a case of so-called cystitis.

#### THE ROENTGEN-RAY EXAMINATION

This may precede or follow the cystoscopic examination. A flat plate of the urinary tract should be made. In a good many cases this will be negative but, on the other hand, the presence of a shadow in the juxta-vesical portion of the ureter compatible with stone, calcifications in the renal area due to stone, or calcifications due to renal tuberculosis would be very informative.



Whether or not an intravenous pyelogram should be made at this time depends upon the history and the results of the examination up to this point. The intravenous pyelogram may be negative or, on the other hand, it may reveal the presence of unsuspected changes in the upper urinary tract. It is to be remembered that errors in interpretation are frequent and often costly and have led to wrong conclusions. For example, failure of the kidney pelvis to visualize does not necessarily mean congenital absence of the kidney nor does it mean that the kidney has been destroyed by disease.

#### CYSTOSCOPIC EXAMINATION AND URETERAL CATHETERIZATION

The diagnosis of cystitis is made from the cystoscopic examination. If this is negative, then it is reasonably certain that the patient who is sent in with a diagnosis of cystitis does not have cystitis and further study to determine the cause of the symptoms is in order.

Because cystitis in women and children is rare, it is imperative that no patient should be treated for this condition for any length of time without a cystoscopic examination. Nevertheless, one sees many patients who have been treated from one year's end to another without a cystoscopic examination having been made.

Should the cystoscopic examination show the presence of pathology in the bladder, such as a stone, foreign body, tumor, or ulcer, then the appropriate treatment can be started at once.

If, upon cystoscopic examination, the bladder is negative, as happens in a very large number of cases, then the upper urinary tract must be investigated by means of ureteral catheterization. In a large number of cases belonging to this group of so-called cystitis cases the primary pathology is found in the kidney. Among the various lesions of the kidney which may be overlooked for a long time because of the presence of symptoms of cystitis, is tuberculosis.

It is a well-recognized fact that, in cases of renal tuberculosis, frequency of urination is often the first symptom of which the patient complains. Frequency of urination may be due to the presence of tuberculous pyelitis, in which case the cystoscopic examination will be negative. When the patient is finally subjected to a careful urological examination, extensive tuberculosis of the bladder may be found and the bladder contracted to such a degree that even after the kidney has been removed and the tuberculosis of the bladder healed, the frequency of urination continues because of the limited bladder capacity. Drugs and bladder irrigations give no relief to the bladder symptoms; in fact, the condition is often made worse by bladder irrigations. When the correct diagnosis has finally been made, such extensive changes may have taken place in the bladder that a complete return to normal bladder function is no longer possible.

After the ureters have been catheterized and the urine collected for cell counts, cultures, Gram's stains, stains for tubercle bacilli, cultures for tubercle bacilli, and guinea-pig inoculations, a phenolsulfonphthalein test is made. At this time a set of retrograde pyelograms may be made. Whether or not we should make retrograde pyelograms depends in part upon whether intravenous pyelograms were made before the cystoscopic examination, as well as upon the result of the pre-cystoscopic examinations of the urine for tubercle bacilli and the cystoscopic findings. If tubercle bacilli are found or there is reason to suspect renal tuberculosis, retrograde pyelograms are not done as a rule.

In the following table are given some of the lesions that must be considered in the differential diagnosis of cystitis:

#### I—Lesions of the Urinary Tract

##### 1. Urethra

- a. Acute Urethritis
- b. Chronic Urethritis
- c. Stricture
- d. Diverticulum
- e. Skenitis
- f. Polypi
- g. Benign Tumor
- h. Carcinoma
- i. Prolapse

##### 2. Bladder

- a. Elusive Ulcer
- b. Stone
- c. Polypi
- d. Trichomonad Infestation
- e. Carcinoma
- f. Incrusted Cystitis
- g. Perivesical Adhesions
- h. Radium Burns
- i. Foreign Bodies
- j. Cystocele
- k. Postoperative Distortion

##### 3. Ureter

- a. Stone
- b. Stricture
- c. Cystic Dilatation of Vesical End

##### 4. Kidney

- a. Acute Pyelonephritis
- b. Chronic Pyelonephritis
- c. Atrophic Pyelonephritis
- d. Renal Tuberculosis
- e. Stone
- f. Hydronephrosis

#### II—Lesions of the Genital Tract

##### 1. Vagina

- a. Cystocele
- b. Complete Prolapse
- c. Trichomonas

##### 2. Uterus

- a. Prolapse
- b. Fibroids

- c. Carcinoma
- d. Endometriosis
- e. Pyometra
- f. Hematometra
- g. Polypi
- h. Malposition following operation

### 3. Tubes and Ovaries

- a. Salpingitis
- b. Tuberculosis
- c. Tubo-ovarian Abscess
- d. Ovarian Cysts
- e. Ovarian Carcinoma
- f. Cysts of the Parametrium

### III—Lesions of the G-I Tract

- a. Fissure
- b. Haemorrhoids
- c. Carcinoma of Rectum or Colon
- d. Diverticulitis with or without Rupture
- e. Chronic Cholecystitis

### IV—General Disease Processes

- a. Nephritis
- b. Diabetes Mellitus
- c. Tabes Dorsalis
- d. Pernicious Anemia with Cord Changes

This table is not complete but represents some of the common lesions that I have found in patients who were referred to me with a diagnosis of cystitis

### TREATMENT

Once the diagnosis of the underlying pathology responsible for the symptoms has been made, the treatment is perfectly obvious and needs no detailed discussion. The treatment will naturally vary and is as diversified as is the list of causes of cystitis that have been presented in the preceding table.

During the acute stages and when the patient is seen during the first attack of acute cystitis, it is important that the patient have complete rest in bed. The application of heat to the bladder area gives a great deal of relief and hot applications to the suprapubic area are in order. They may be fortified with hot water bags and, in addition, hot vaginal douches with a weak solution of bicarbonate of soda are provocative of good results. Attention to the bowels should consist of laxative foods or mild drugs. Purging is always contraindicated. Sedative drugs during the acute stages may be indicated in the form of tincture of hyoscyamus and bromide of potash. In some of these acute cases rectal suppositories containing belladonna and opium give the patient a great deal of relief.

I do not use local treatment, such as instillations and irrigations, during the acute stages. During the acute stages I believe the patient is made much more comfortable by thorough alkalization of the urine and for this purpose I prescribe citrate of potash and acetate of potash and small doses of bicarbonate of soda. I prefer to have the patient on an alkaline regime for a week or ten days, at which time urinary antiseptics such as urotropin are administered. It must be remembered that the urine must be acid during the administration of the urotropin. Most of the cases of so-called acute cystitis are self limited and on this program the patient makes a complete recovery.

When this program fails to relieve the symptoms and if the symptoms have been relieved and they recur, it then becomes our duty to determine the underlying pathological factors responsible for the recurring attacks of cystitis and when they have been found the treatment becomes self-evident.

### CHILLING OF THE BODY SURFACES: ITS RELATIONSHIP TO AURAL AND SINUS INFECTIONS

H. MARSHALL TAYLOR and LUCIEN Y. DYRENFORTH, Jacksonville, Fla. (*Journal A.M.A.*, Nov. 5, 1938), declare that cold water has a veritable appetite for heat. Since the ratio of conductivity of water to air is 27 to 1, it follows that water takes heat from the body twenty-seven times faster than does air. The lack of a compensating mechanism for the maintenance of an average normal temperature in any medium colder than his normal surroundings is conspicuous in man. This tendency to rapid loss of heat owing to physical conditions that promote such loss forms the basis for this study. Its practical application relates to the ordinary causes of the common cold, in particular bodily immersion such as swimming and bathing, and also exposure to excessive cooling by drafts, from damp clothing and the like. Bacteria are normally and constantly present in the upper part of the respiratory passages, but they may multiply to pathologic proportion in the person whose resistance is lowered. Kuntz made clear the interrelation of the innervation of the peripheral blood vessels and the mucous membranes. This autonomic control of vasoconstriction and vasodilatation forms the basis of the physiologic balance between the splanchnic

and the peripheral areas. Thus, when stimulation by cooling results in peripheral ischemia, the mucous membranes undergo a similar experience; prolongation of this condition serves to throw out of balance the nicety of integration existing under normal metabolic phases and accounts for the ability of ordinary avirulent organisms to overcome the obstacles of tissue immunity at the portals of entry. During exposure peripheral vasoconstriction is prevented by muscular activity, and it follows that infection is therefore less likely to occur. In an experiment with three healthy and mature guinea pigs it was found that chilling without exercise produces a leukopenia of the polymorphonuclear neutrophilic type. The phagocytic powers of the blood cells are definitely diminished. This observation was further substantiated by the death of one of the animals within twenty-four hours, and at necropsy the presence of bronchopneumonia was noted. In each of the three animals a second exposure to cold caused an even more decided leukopenia. One of the immediate results of these changes is the predisposition to infections of the upper part of the respiratory tract, the paranasal sinuses, the eustachian tubes and the middle ear.



## THE NORMAL INFANT

First of a series of articles on Child Health sponsored by the  
Indiana Pediatric Society

During the past decade there has been displayed in pediatric literature more and more interest in the normal infant.

This interest gives rise to two questions: (1) What are the age limits of infancy? (2) What is meant by the word *normal*?

The first question is readily answered since it is generally agreed that the word *infancy* covers the period from birth to two years.

The second question, however, is not so easily answered, because there is no total agreement as to what is meant by the word *normal*. Webster defines the word *normal* as "conforming to type, standard, or regular form."

Since no two human organisms are exactly alike in their developmental characteristics, it is obvious that no normal standards of type or form can be set up for an infant.

If such a set of normal standards of growth and development could be set up to apply to the infant it would be impossible to include all the variations of these normals. Also, these standards would be influenced by the human equation and therefore add to the confusion.

It is conceivable that a more perfect set of standards of normal could be obtained from the study of one child than from a large group. At least non-essential variations would be minimized. Too, much of the literature on the normal infant deals with data on averages rather than the subject of possible healthy variations. The term *well* or *sound* infant might logically be substituted for the confusing term *normal infant*. For the purpose of this discussion, the word *normal* will be used as meaning *well* or *sound*.

Regardless of who may attempt to judge the infant normal, no one except the physician can intelligently do so; he alone has had the necessary training and experience.

The parents of any child are not capable of judging what is normal in the infant's development because of their love for the child and their lack of training. Usually a parent is more capable of detecting the abnormal (especially during illness of the infant) than they are the normal.

The only purpose, then, of this discussion is to stimulate the interest of those having the medical care of infants in making more complete and careful studies of their development.

For purposes of contrast, normal infant development may be divided into physical growth and mental growth. These two aspects of development must proceed gradually upward and with equal rapidity if a "whole" infant is to develop. Failure of either influences both.

It is worthy of note that most parents are more interested in the physical growth than in the men-

tal growth of the infant, blindly trusting that since the mind grows the mental growth will take care of itself. It is the duty of the physician to teach parents that mental and physical growth are equally important.

In order to further understand the processes concerned in the development of normal infants, the physical and mental aspects will be discussed separately. It must be borne in mind that the discussion concerns the normal infant and only the smooth synchronization of both aspects can be of value to the infant. Both aspects are influenced by such factors as heredity, environment, birth, prenatal and neonatal care.

### PHYSICAL GROWTH

The status of the physical growth of the normal infant is determined by a complete history, measuring height and weight, physical examination and such laboratory procedures as are applicable. The history, to be of value, must include all facts pertinent to the infant.

The average infant weighs seven pounds. This weight should be doubled at the age of six months and trebled at one year. This rule does not apply to other than average birth weights. During the second year the weight increases by four to six pounds average.

Weight charts are useful only for average types and should not be exposed to parents whose infant is above or below these averages lest apprehension be increased.

Grossly the body build of normal infants may be divided into two types: the asthenic or vertical type, the tall, angular, thin child; and the pyknic or lateral type, the short, heavy child. These variations of body build are normal.

Evaluation of the physical growth of the various parts of the body is an important factor in judging a normal infant.

**The Skin:** The normal skin is of good texture, color, and elasticity and free of blemishes or pigmented growths.

**The Head:** The normal infant's head when in proportion to his body is almost twice as large as an adult's. It averages twelve to fourteen inches in circumference.

Both fontanelles are open at birth. The posterior closes within four to ten weeks. The anterior requires from fifteen to twenty months.

The hair may be of various colors at birth, may be lost any time up to fifteen months, and the new crop may be of an entirely different color.

The eyes are usually but not always blue. Whatever the color is at the end of the first year, that color will persist. By the fourth month the eyes are in all probability as perfect organs of sight



as they ever will be. The pupils react readily to light. Variations of strabismus is normal until the age of eight to ten months.

**The Ears:** Hearing is present at birth, and its acuteness can be determined by the method of "conditioned reflex." This is important in cases of adoption. Practically all infants respond in a pleasant manner to music.

The sinuses are not well developed at birth and may be filled with fluid which drains out slowly.

The mouth is of interest in the development of the arches and teeth and their influence on nutrition.

The teeth arrive with no great regularity. The spacing and quality of enamel are important in normal development. The first teeth appear from 5 to 9 months of age.

Tongue-tie has lost its appeal as a cause of feeding difficulties.

Tonsil and adenoid growth is slow during the first two years except in the pyknic types.

Enlarged lymph nodes are not normal in the well infant.

**The chest** is approximately the same size in circumference as the head and slightly larger than the head by the end of the first year.

Breathing is mainly abdominal and the rate varies from thirty to sixty per minute.

The heart normally is free of murmurs and varies in rate from ninety to one hundred and twenty-five. The rate is easily stimulated by exercise to as high as one hundred and eighty or more per minute.

The size of the thymus cannot be determined by physical examination and rarely by x-ray. Its presence or size is of no significance in appraising the normal infant.

**The abdomen** is prominent during the period of infancy. The liver may be palpable, but no other abdominal organs should be.

**The genitalia** is of no interest except that it is as normal for the child to "play" with these parts as it is to play with toes, ears, and hands.

**The bony skeletal** growth can be determined only by x-ray. The centers of ossification appear at regular intervals in the normal infant.

**Laboratory procedures** are important although few are indicated in health appraisal. Urinalysis is one of the most essential, especially since we know that the infant's kidneys quadruple in size during this period. Blood examination is important if the normal variations are kept in mind. The red blood count varies from five to seven million at birth to three to four million after the first few weeks, to rise again to normal after the first six months.

The hemoglobin varies from 100% to 150% at birth to 65% to 85% after the first few weeks and rises to normal level after the first six months.

The white blood count may vary from twenty to

thirty thousand at birth with a preponderance of polys. After the first few months, a preponderance of lymphocytes exists, but at the end of infancy these cells are about equal in number.

**General Physical Activity:** Within normal limits an infant holds his head up from 2 to 4 months, sits without support at 5 to 9 months, crawls and stands without support from 6 to 10 months, stands alone or walks at 10 to 15 months, and is able to run by the end of infancy.

From this description it will readily be seen what a wide range of variations may occur in a normal infant and only by carefully weighing these variations can a sound appraisal of what constitutes a normal physical growth be obtained.

**Mental Development:** This aspect of development in the infant cannot be as accurately measured as those of growth development. Yet much has been done during the past decade in attempting to appraise this process. From such study, normal reaction standards have been set up which, although characterized by many variations, fall within definite bounds. Methods of measuring mental growth are too varied and too numerous to mention here.

Normal reaction in the infant results in behavior patterns which to a great extent continue on into childhood.

Behavior patterns are influenced by such factors as proper growth, heredity, racial characteristics, economic and climatic conditions and especially by the general plan set up for the human species.

Some believe that behavior patterns begin in the fetus and that after birth new behavior patterns are simply the continuation of these reflexes. Examples are sucking and respiratory reflexes, and jerking reflexes by skin stimulation. These fetal reactions may be classified as "equipment for living" reflexes.

A continuation of this "equipment for living" reflex after birth results during infancy in more or less controlled actions or patterns. These patterns result in such actions as postural control, manipulative ability, language acquisition, and social behavior. The infant acquires these in an orderly fashion and a great deviation results in abnormal reaction.

One example of a normal continuation of pattern is in the field of speech. For instance, an infant crows before he utters syllables, says single words before he joins words, and uses nouns before he does prepositions.

The knowledge that these behavior patterns develop in a standard, orderly fashion is a great aid in the detection of degrees of mental retardation and offers an opportunity for correction when possible.

The rate of mental growth is individual and varies greatly. As a rule if the rate is accelerated mentally superior types tend to result. If slow, degrees of mental retardation develop.

To nurture mental development would seem highly advisable. To aid parents to do this the physician's advice must be sought and he must be as accurate in this advice as he is in his instructions for the physical welfare of the infant.

To recognize normal behavior patterns and their variations and to advise parents in the correct establishment of habits is important in the formation of normal behavior patterns. Routine in infancy of feeding, sleeping, dressing, and bathing results in definite expectations in the infant who will to a marked degree develop normal habit patterns. These habit patterns are invaluable to the infant since such routine experiences result in degrees of judgment and responsibility and a

natural submission to the social order about him. If parents could display to the infant normal behavior patterns, by imitation the infant could easily acquire them.

It is apparent from this brief description that the total growth of the normal infant obeys natural, orderly laws of physical and mental development, and that to appraise the infant as a unit we must be able to recognize the limits of what is normal. The ability to do this is truly preventive medicine.

(References: Many books and references have been used in this paper and no originality is intended. Among the authors are: Gesell, Aldrich, Boyd, Bakewin, and Merritt; also publications of the White House Conference on Child Health and Protection.)

## ANTI-STREPTOCOCCIC SEROTHERAPY IN AGRANULOCYTOSIS RECOVERY OF TWO CASES

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The purpose of this report is to add to the literature the history of the recovery of two desperate cases of acute agranulocytosis, one case suggestive of a possible drug etiology, and the other with an unknown etiological factor. The severity of this disease, the high mortality rate, and the large percentage of chronic cases indicate that a report of two recoveries with the use of anti-streptococcic serum may be of value in the search for a specific therapeutics.

CASE 1.—J. M., a white woman, age 46, married, a laundry office clerk, was admitted to St. Margaret Hospital, Hammond, on June 14, 1937. A year previously she had suffered an attack of tonsillitis which lasted two weeks. Since that time she had been in good health, although she used allonal tablets intermittently to induce sleep. Five days prior to her admission to the hospital she contracted a sore throat and a slight temperature developed.

Other past history was irrelevant.

On entrance to the hospital she was suffering with malaise and a severe sore throat. Both tonsils were markedly swollen and were covered with a membranous exudate. There was marked swelling of the anterior cervical lymph glands. The temperature was 104 F., pulse 100, and respiration 20. On June 15 the leukocyte count was 850 per cubic millimeter, and the differential count showed 99 per cent lymphocytes and 1 per cent polymorphonuclear neutrophils. The erythrocyte count was 4,610,000 per cubic millimeter, and the hemoglobin was 80 per cent. The red blood cell count remained essentially unchanged throughout her illness. A throat culture showed a mixed growth of gram negative bacilli, streptococci and staphylococci. After a negative test for horse serum

sensitivity, she was given a therapeutic dose of anti-streptococcic serum intravenously and 10 cc. of pentnucleotide intramuscularly, the same treatment being repeated later in the day.

June 16 the leukocyte count was 950 per cubic millimeter, and the differential count showed 98 per cent lymphocytes and 2 per cent polymorphonuclear neutrophils. The patient appeared acutely ill, and was given 490 cc. of whole blood by direct transfusion, together with a therapeutic dose of anti-streptococcic serum intravenously and 10 cc. of pentnucleotide intramuscularly, and the same treatment was repeated later in the day. The temperature ranged from 99.6 to 103.6 F.

June 17, 10 cc. of pentnucleotide and a therapeutic dose of anti-streptococcic serum were given as before, followed on June 18 with two doses of pentnucleotide intramuscularly and 490 cc. of whole blood by direct transfusion. June 19 three 10 cc. doses of pentnucleotide and one therapeutic dose of anti-streptococcic serum were given as before, followed on June 20 with two 10 cc. doses of pentnucleotide. The blood count gradually changed with this therapy until on June 20, the sixth hospital day, the leukocyte count was 4,750 per cubic millimeter, and the differential count showed 87 per cent polymorphonuclear neutrophils and 13 per cent lymphocytes. The temperature remained between 99.2 and 101 F.

June 22, the eighth hospital day, the patient was greatly improved, her throat was practically normal in appearance, and swelling in the anterior cervical lymph glands had subsided. The leukocyte count was 10,050 per cubic millimeter, and the differential count showed 20 per cent lymphocytes and 80 per cent polymorphonuclear neutrophils. The temperature remained between 99.2 and



101 F. In the afternoon, generalized urticaria developed, which was relieved by 7 minims of adrenalin chloride, 1-1,000, administered subcutaneously, and the pentnucleotide and serotherapy were discontinued.

The patient was discharged on June 25, the eleventh hospital day, when the leukocyte count was 13,550 per cubic millimeter, and the differential count showed 79 per cent polymorphonuclear neutrophils and 21 per cent lymphocytes. The temperature was 98.6 F., pulse 96, and respiration 20. Her recovery was complete and uneventful.

CASE 2.—F. J., a white woman, age 31, married, a housewife, was admitted to St. Margaret Hospital, Hammond, on July 27, 1938. Since childhood she had been subject to hay fever and hives. She had been swimming on July 17, and that night a sore throat developed which suddenly became acute on July 24, and her temperature rose to 101 F. Her back, legs, thighs and chest became sore and "stiff," the next day her temperature rose to 105 F. and she became unable to swallow.

Other past history was irrelevant.

On entrance to the hospital she appeared acutely ill. The throat was edematous, dusky red in color, and there was prominent swelling of the anterior cervical lymph glands, more marked on the left side. There was generalized cervical edema and dysphagia. The temperature was 104.8 F., pulse 126 with an occasional extra-systole, respiration 28. July 28 the leukocyte count was 1,550 per cubic millimeter, and the differential count showed 4 per cent polymorphonuclear neutrophils and 96 per cent lymphocytes. The erythrocyte count was 5,840,000 per cubic millimeter, and the hemoglobin was 80 per cent. Cyanosis was apparent. A throat culture showed staphylococci and pneumococci. After a negative test for horse serum sensitivity, she was given a therapeutic dose of anti-streptococcic serum intravenously and 7 minims of adrenalin chloride 1-1,000 subcutaneously. The temperature was 103.8 F., pulse 120, and respiration 24.

July 29, the third hospital day, the patient was markedly improved, both subjectively and objectively; the cyanosis had disappeared, and the cervical edema had decreased. The leukocyte count was 6,400 per cubic millimeter, the differential count showed 8 per cent polymorphonuclear neutrophils, and 92 per cent lymphocytes. The temperature ranged from 100.8 to 102.8 F. She was given a therapeutic dose of anti-streptococcic serum intravenously and 7 minims of adrenalin chloride, 1-1,000, subcutaneously.

August 1 the leukocyte count was 24,350 per cubic millimeter, and the differential count showed 78 per cent polymorphonuclear neutrophils, 21 per cent lymphocytes and 1 per cent eosinophils. The erythrocyte count was 4,440,000 per cubic millimeter, and the hemoglobin was 75 per cent. The temperature was 99 to 100.2 F. August 2, 3, and 4 the patient received daily serotherapy and adrenalin chloride 1-1,000 as before, and daily doses of

concentrated liver extract orally. August 5, the ninth hospital day, the leukocyte count was 37,250 per cubic millimeter, and the differential count showed 83 per cent polymorphonuclear neutrophils, 16 per cent lymphocytes, and 1 per cent mononuclears. The temperature was 99 F. August 6 and 7, the patient received daily serotherapy and adrenalin chloride 1-1,000 as before, and oral doses of concentrated liver extract. The temperature was 98.6, pulse 98, and respiration 20. August 8, the thirteenth hospital day, the patient was discharged. Treatment was continued with the quartz lamp and oral doses of concentrated liver extract, and an uneventful convalescence was completed.

#### SUMMARY AND COMMENT

In one case of agranulocytosis treated with pentnucleotide and anti-streptococcic serotherapy, recovery was relatively slow. In another case treated with anti-streptococcic serotherapy alone, recovery was rapid.

Further work will be necessary to determine which therapeutic factor was the efficacious agent in these two cases. It may be that no part of the therapeutics used was responsible for these recoveries. In Case 1, recovery may have been due to the pentnucleotide therapy, to the antibodies in the anti-streptococcic serum, or to the development in the non-allergic patient of an active immunity in response to the non-specific protein in the horse serum. The relatively slow response to the therapy employed may have been due to the use of allonal intermittently for one year prior to the onset of the disease. In Case 2, the more rapid recovery may have been due to the fact that the patient was an allergic individual, and was therefore more readily affected by a foreign protein.

5248 HOHMAN AVENUE.

#### USE OF SERUM IN TREATMENT OF HIGHER TYPES OF PNEUMONIA

Pneumonia of the higher types is an important part of the pneumonia problem. In a collected series of 6,545 cases of pneumococcic pneumonia NORMAN PLUMMER, New York (*Journal A. M. A.*, Aug. 20, 1938), finds that more than 50 per cent of the cases were of the higher types, 30 per cent being of types IV, V, VII, VIII and XIV. He and his associates used antipneumococcus serum in 111 cases, with a rather marked clinical response and an appreciable effect on the mortality rate for the combined series of cases of pneumonia of types IV, V, VII, VIII and XIV. At present there are available refined and concentrated preparations of horse and of rabbit serum that are high in antibody content and almost entirely free from reaction-causing substance. With such products the prospects are excellent for obtaining increasingly better results in the treatment of all types of pneumococcic pneumonia. Nine patients with type III pneumonia were treated with concentrated antipneumococcus rabbit serum, the last six having had no untoward reactions. Of the nine, three died and six recovered. Of those who recovered, one had a positive blood culture when serum treatment was instituted. Three were treated very early in the course of the disease and showed prompt response to a large unitage of serum. Antipneumococcus rabbit serum has taken the focus of attention recently, but whether rabbit serum, unit for unit, is more effective than horse serum remains to be proved.



CLINICAL EXPERIENCES WITH SULFANILAMIDE\*

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So much has been written and said about para-aminobenzene-sulfonamide that one wonders why more should be printed. The writers make no pretense of adding anything original to the literature nor of contributing any research data. We have, however, had some clinical experience with this drug and feel that it might be of interest to set down our own observations of our results.

Our experience with sulfanilamide in the treatment of gonorrhea has been limited to somewhat less than fifty cases, in many of whom the results were lacking in brilliance if they were not actually disappointing, so we are not prepared to discuss this phase of the efficacy of sulfanilamide in detail.

We have, however, utilized the drug in 96 other cases, some of the details of which we wish to report. Thirty-two of these

CHART I	
AGE	NUMBER OF CASES
10-19	3
20-29	9
30-39	14
40-49	13
50-59	20
60-69	18
70-80	14
Over 80	3

patients were females, 64 males, ranging from 10 to 86 years of age, as shown in Chart I. It was not observed that the patient's age had any significant relationship either to the success or failure of the medication, nor to the development of untoward results.

Chart II shows the diagnosis of the various diseases for which the drug was used, pyelonephritis and urinary tract infection incidental to prostatic obstruction being the most numerous treated. We have also used sulfanilamide to treat 5 additional

CHART II	
Infection incidental to prostatism	34 cases
Pyelonephritis	28 "
Infection concurrent with renal or ureteral calculi	8 "
Non-specific prostatitis	4 "
Pyelonephritis of pregnancy	3 "
Specific prostatitis	2 "
Specific urethritis	5 "
Endocervicitis	1 "
Cord bladder with infection	1 "
Non-specific urethritis	3 "
Carcinoma of bladder with infection	2 "

cases of supposed non-specific pyelonephritis, in all of whom acid fast bacilli were found after taking the medication for varying periods of time. These cases were all hospitalized at the same time, an incidence of tuberculosis higher than we have had at one time. We are critical as to whether the organisms were tubercle bacilli. None of the patients had pyelograms suggestive of tuberculosis. Too little time has elapsed for reports from guinea pig inoculation. The relatively

large number of patients at one time, not otherwise suspected of having tuberculosis, raises the question in our mind of the possibility of the drug changing the morphologic and staining characteristics of some organism other than the tubercle bacillus. This, of course, is pure speculation.

The actual motives which prompted us to use sulfanilamide in the above mentioned 96 cases are listed in Chart III, pyuria and bladder irritability heading the list. In many instances more than one reason occurred in the same patient.

CHART III	
Pyuria	79 cases
Bladder irritability	37 "
Post resection prostatitis with pyuria	27 "
Urethral discharge	10 "
Fever	2 "
Vaginal discharge	1 "
Shreds in urine	1 "
Perineal pain	1 "
Pus in prostatic secretion	1 "

During the first few weeks when we used sulfanilamide we were struck with the high incidence of untoward symptoms, the ratio being apparently in proportion to the size of the dose. Seventeen cases were started on initial doses of 120 grains in two days. Reduction of the dose seemed to decrease

the severity of reactions without greatly impairing the efficacy of the drug in non-specific infections. Therefore we administered 20 grains daily for a week to 29 patients and for two weeks to 27 patients. A few post prostatic resection patients were given maintenance doses of 10 to 15 grains a day after the second week for periods as long as a month without depletion of the white blood count, in some instances the urine becoming cloudy after stopping the medication. Otherwise, we have administered the drug for an average maximum time of two weeks in 20 or 30 grain daily doses after the first two or three days.

We have been impressed with the rapidity with which cloudy urines became clear after patients start taking sulfanilamide. Our impression is that if no effect is noted by the third or fourth day, continued dosage is not so likely to bring results as if the urine started clearing during the initial period of administration. Forty-nine patients whose urine was cloudy prior to the use of sulfanilamide had grossly clear urine within a few days after the drug was started. Fourteen patients improved materially. Nine had no clarification.

Seventy-six patients had acid urine before and after sulfanilamide therapy and 8 had alkaline urine. Nine had an alkaline reaction before treatment with acidity thereafter, and 3 vice versa. Eighty-two per cent of the patients with permanently acid urine and 70 per cent of those with

\* Read at Meeting of North Central Branch, American Urological Association, Madison, Wisc., Oct., 1937.

alkaline urine had noticeable improvement from sulfanilamide.

Microscopic urinalysis revealed pus in the urine of 20 patients who had no pus subsequent to therapy. Nineteen patients had marked quantitative decrease in the amount of pus, 19 had no reduction, and 32 had pus free urine while taking sulfanilamide, but relapsed after discontinuing the drug. Bacterial organisms were found in the sediments of 12 patients before and none after medication. Twenty-six had organisms before and after medication. Six had positive cultures before and negative smeared sediments after therapy, while 6 more had positive cultures before and after. The aforementioned organisms were bacilli and cocci. One case with proteus infection had positive cultures before and after treatment, but quantitative reduction of the number of organisms. Perhaps larger doses would have eradicated it.

Untoward symptoms following the use of sulfanilamide were observed in 50 per cent of the patients. Chart IV shows the nature of these symptoms. It is interesting to note that almost 50 per cent of the patients having symptoms referable to the nervous system had them confined to that system, while about 90 per cent of those with gastrointestinal symptoms also had some nervous system symptoms.

CHART IV

Untoward symptoms in 50 per cent of all cases taking sulfanilamide.

40 patients with one or more nervous system symptoms	Lassitude or drowsiness Headache	23 patients 17 "
48 per cent of these were confined to the nervous system	Vertigo Paraesthesia	11 " 3 "
52 per cent combined with other symptoms	Tinnitus, marked	1 "
27 patients had some gastrointestinal symptoms, usually in combination with those of other symptoms	Nausea Diarrhoea Marked constipation Metallic taste	20 " 7 " 2 " 3 "
12 patients had skin symptoms	Cyanosis Sore tongue Rash resembling measles	8 " 2 " 2 "
Marked cardiovascular collapse		1 "

We have noted decline of the white blood count to as low as 4,000 in 4 patients taking 20 to 30 grains a day for one to two weeks. Administration has always been stopped when this finding was made. We try to make it a rule to obtain a white count routinely on ambulatory as well as hospital patients before starting sulfanilamide, and also four days after the patient has begun taking it. We have not observed any severe secondary anemia as some have reported nor have we seen clinically demonstrable renal nor hepatic damage resulting from sulfanilamide.

Thirty-nine patients who had had no benefit from methenamine had varying degrees of improvement with sulfanilamide. Fourteen patients had no benefit from any antiseptic. Five additional unsuccessful results from methenamine were benefited both by mandelic acid and sulfanilamide, while 5 who had no improvement from mandelic acid were helped by sulfanilamide. Many of our cases received only sulfanilamide.

It is difficult to translate the concrete results into specific terms because too little time had elapsed since the advent of sulfanilamide to make too positive statements as to its permanent effect. Twenty-two patients to whom we gave sulfanilamide had complete subsidence of bladder symptoms and pyuria which did not recur after the drug was discontinued. Twenty-nine patients had freedom from symptoms and pyuria while on dosage, only to have the symptoms recur when it was stopped. Seventeen had some permanent quantitative improvement but were not relieved entirely of pyuria or bladder irritability. Sixteen patients had no improvement in any respect. Two patients had relief from bladder symptoms with no decrease in pyuria. Seven patients who have had apparent relief, both symptomatic and freedom from pyuria, have too recently been on treatment to evaluate the results.

#### CONCLUSIONS

In conclusion we wish to say that we believe that sulfanilamide has given sufficient results to warrant its careful continued use under supervision. It is not a drug to be taken on the authority of the druggist or patient, nor to be used indiscriminately by the physician. One should constantly be on the alert for the development of untoward signs or symptoms. With these qualifications in mind we feel: (1) that it has been very helpful in the treatment of pyelonephritis, especially where no marked anatomic changes have been found; (2) that it has been of material aid in clearing urine of the post prostatic resection patient; (3) that while symptomatic improvement has been noted in gonorrheal urethritis, the end results in our community of patients treated both by large and small doses have not been as gratifying as we had hoped from the results of others.

We "view with alarm" the trial by newspaper to which sulfanilamide has been subjected, as well as the austere repulse which its mention meets from some physicians, and its indiscriminate use by others, but "point with pride" to the hopes which temperate chemotherapy offers in the future to the treatment of urinary tract infections.

1711 NORTH CAPITOL AVENUE.

"Middletown Modernizes Medicine"—Page 36.  
Be sure to read it. The plan may be applicable in your community.



## THE GENERAL PRACTITIONER REMEMBERS THAT THE CHILD HAS EMOTIONS

STEWART RICHARD SMITH

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The general practitioner of medicine can be, in a great many instances, one of the most profound influences on the emotional life of the children whom he contacts.

The doctor may be entirely unaware of this influence in meeting children with organic diseases, children with behavior problems, healthy children, or even the parents through whom he works. He may be unaware of the fact that not only does his medicine affect his patients, but also his mere contact as a professional person exerts a therapeutic action. Another way of stating this unawareness of the emotional influence that may seriously affect future mental health and behavior is, "The behavior of children is a topic that has never given physicians much concern except as it interfered with the child's taking of medicine, or remaining in bed, or submitting to a physical examination."<sup>1</sup>

Not only should the doctor be aware of this influence as a professional man, but he should realize that this influence directly on the child's emotions, or indirectly through the parents, may accomplish a great deal. This influence may help a sick child to a healthy acceptance of his illness; but, if misdirected, it may be a major contributing cause to a life of misery and invalidism. With the realization of the potential danger of this influence, the doctor should assume the responsibility of using it for the good. In this way he will treat the child as a whole person in contrast to the outmoded way of thinking of the "physical" on the one hand and "mental" on the other. It is in recognition of his responsibility to use this influence for the good that "the doctor serves best not to lessen the likelihood of death but to promote the enrichment of life."<sup>2</sup>

When the practitioner is aware of the responsibility of using this influence for the good, he will strive to learn how to use it. That this is not the case as often as it should be is well known. One young doctor admitted, "At least half of my practice takes me into the field of behavior difficulties in childhood that I do not know how to handle."<sup>3</sup>

If the doctor would learn to use this influence, he must understand his patient's behavior and not merely label it neuropathic, neurotic, or psychasthenic and do nothing more about it. Perhaps a better nomenclature for diagnosis would be that of Kanner's,<sup>4</sup> personality difficulties associated with lie, or stealing, or whatever the child's symptoms and signs are. In this way the doctor is at least not dodging behind a mysterious sounding word.

A general practitioner who learns to take into account the emotions of children will probably make more correct diagnoses, give better treatments, and thereby be economical of both his and the patient's time and money.

The following pages contain examples taken from cases at Riley Hospital and from statements in recent literature. They concern the importance of the effect that emotions have on the health of the child. For convenience these examples are classified as follows: (1) children with organic disease; (2) children with behavior problems; (3) healthy children; (4) parents.

### CHILDREN WITH ORGANIC DISEASES

These cases are taken from the charts of Riley Hospital as recorded by the interne. Although they are probably essentially true, it must not be forgotten that they are second-hand information in that someone else told them to the interne.

The family doctor for G. H. (Riley Hosp.) not only kept her in bed for three months and kept her out of school six months after a post-tonsillectomy hemorrhage, but he warned her and her parents that unless she were extremely careful she might drop over dead of heart trouble or be a chronic invalid. She developed anxiety attacks and invalidism because of a parental rift and sexual advances from an old man. A more beneficial effect on the child's emotions could have been obtained had the physician not: (1) used fear to get the child and the parents to carry out his procedures, (2) over-protected G. H. by keeping her in bed and out of school with the resultant invalidism, (3) missed the discovery and evaluation of the parental rift and sexual advances which contributed to the development and maintenance of her invalidism.

The school doctor for H. J. (Riley Hosp.) said that he could not play basketball because he had high blood pressure. After being told that, H. J. developed symptoms of weakness, anorexia, fainting and placing his hand over his heart. In the hospital under less exciting conditions his blood pressure was found to be normal. This case illustrates that doctors should evaluate instru-

\* This article received first prize in a contest sponsored by the George Davis Bivin Foundation, the general subject of which was "The Relation of the Emotions to the Mental Health of the Child." The purpose of this particular essay was given as stressing "the importance to the general practitioner of medicine of considering the emotions in helping children to mental health."

<sup>1</sup> Richards, Esther: Behavior Problems of the Pediatrician: *Med. Clin N. America* 18:1663.

<sup>2</sup> Wile: Child Guidance as a Medical Function: *Arch. Ped.* 52:220.

<sup>3</sup> Richards, Esther: Mental Health of Childhood: *J. Ped.* 1:558.

<sup>4</sup> Kanner: Contribution of a Psychiatrist as Member of the Pediatric Hospital Staff: *J. Ped.* 1:564.



mental findings such as blood pressure. Even when the findings are mildly pathological it may do the patient less harm if not told at all. Perhaps a danger in not telling the patient at all is that some other doctor might pick up the condition and alarm the patient. If the condition is serious and good can be done by telling the patient, then the news should be broken gently without alarming the patient. The patient should also be followed up with some form of mental hygiene. "Teach him early in life how to get along with his specific limitation without being self-conscious about it."<sup>5</sup> These same things certainly apply to those thousands of young people with rheumatic hearts who have been warned of their "leakage of the heart," rather than helped by friendly guidance to a healthy acceptance of the disease.

Seven year old E. S. (Riley Hosp.) was admitted to the hospital because her doctor said she had had vaginitis for five years as evidenced by a discharge. In the hospital there was so little discharge that smears were difficult to obtain. As regards this case, if she did have discharge for five years, the treatment was probably incompetent. If she did not have it for five years, then many unhappy memories may have been fixed rather permanently.

Talking of the patient in his presence is a common but serious offense of doctors. Such remarks as, "I can feel his kidney," can hit the patient like a thunderbolt and can break down his morale and hope of recovery,<sup>6</sup> since the patient interprets these remarks as indicating something wrong. This kind of remark is different from giving appropriate information to the child in answer to his questions.

Emotional disturbances should be recognized as helping to precipitate some disease manifestations as those of epilepsy. "Thirty-one out of forty-two epileptics had a direct relation between emotional upsets and a major convulsion, usually fear, guilt, or frustration. Many of these had organic brain changes such as tumor as well as the upsets."<sup>7</sup> The initial symptoms of these organic diseases may be emotional upsets. However true this emotional relation may be, the treatment would certainly not be that of anxiously shielding the patients from emotional trauma and thus taking the joy out of life.

#### CHILDREN WITH BEHAVIOR PROBLEMS

The first responsibility of the doctor to children with behavior problems is to understand that they are symptoms of underlying difficulties. This will permit true diagnosis because it is based on correct etiology. Listed below are some common examples where there has been lack of such understanding.

J. K. (Riley Hosp.), according to his mother, had "St. Vitus Dance." The family doctor had been giving him drops t. i. d. which contained strychnine and arsenic. He had been under the care of a doctor most of his life. In the hospital his movements were not choreiform. The drops given were evidently of the placebo or spring tonic type often given to "neurotics." Thus it was found in the hospital that there were probably no organic changes but the symptoms were due to pressure on the child by the parents. The neutral environment of the hospital removed the child from parental pressure and relieved the cause of the symptoms. The practitioner should have realized the role of the parental pressure and directed treatment toward that.

The doctor diagnosed B. B. (Riley Hosp.) as "acute indigestion" because he had spells of vomiting, becoming faint, rigid, and holding his breath. The mother had had a nervous breakdown eight months ago. The chart gave no hint as to any treatment before admission. In the hospital no organic basis for the symptoms was found and so the case was diagnosed as a behavior problem. This diagnosis gave the doctor now in charge more of an opportunity to find and correct those influences which may have acted on the boy's emotions so as to produce the behavior problem.

W. M., (Riley 9357), who had enuresis, ravenous appetite, irregular movements of the upper extremities and liked to show off was given morphine and "two capsules" by a doctor who saw him have a smothering attack. In this attack he fought his way to the window and panted for air. Later he was given pink medicine and white tablets. In the hospital this case was diagnosed as a behavior disorder. The treatment in this case before admission suggests that the practitioner did not understand the true etiology. If he did know that it was a functional condition then the treatment did not include insight into the cause and an attempt at its removal. Such insight as is shown in Child Guidance Clinics might be helpful. As regards the doctor's relations to these children who are sometimes regarded in the same class as "malingerers," one author states, "in dealing with the neuropathically handicapped child, arguing is useless, shaming is cruel, and coddling is fatal."<sup>8</sup> "To attempt to repress the tendency to misconduct by mere admonition or by punishment savors strongly of the old drug therapy for illnesses—the symptoms were then the objects of attention and the underlying pathology was not even suspected."<sup>9</sup>

"The doctor's attitude toward emotional behavior should be based on the idea that the investigation of any offense or misbehavior is less important than making an effort to understand the offender."<sup>10</sup> This view makes the whole child and not his illnesses the center of medical interest and thought.

<sup>5</sup> Richards, Esther: Some facts about the So-called Neuropathic Constitution: *J. Ped.* 1:686.

<sup>6</sup> Kahn and Powers: Bedside Teaching: *J.A.M.A.* 107: 639.

<sup>7</sup> Smith, F. F.: Influence of Emotion in Precipitating Convulsions: *Am. J. Psychiatry* 13:717.

<sup>8</sup> Healy, M.D.: Honesty.

The practitioner might well adopt these rules in treating behavior problems:

- "1. Have unending patience with the child.
- "2. Have faith in the child's ability, (his plasticity and potentiality for further growth).
- "3. Try to see the problem as the child sees it.
- "4. That in every sort of conduct disorder the child is trying to solve a problem."<sup>9</sup>

In looking for the causes of these behavior disorders it should be remembered that "trifles are often the immediate causes and that they touch off a complex situation often embedded in the family drama. The child is defenseless against the attack and responds in the only way he knows—by tantrums, running away, or other emotional releases."<sup>10</sup>

Other contacts that doctors have with the emotions of children with behavior problems are through chance words or actions that may implant in the child's mind the conviction that he has some terrible organic disease. "Many pediatric and parental neuroses are caused by the hasty and erroneous diagnosis of heart disease,"<sup>11</sup> as in the previously quoted case of G. H. where this was a factor.

The doctor should take advantage of every opportunity to correct in some way the overemphasis that parents often lay on the dangers of some past incident, such as the time when the child was shut up in a closet with a dog. In one case this contributed to a phobia in later life."<sup>12</sup>

#### HEALTHY CHILDREN

Health is a relative matter and probably never completely achieved. The doctor should in his everyday contact with children, in his taking care of healthy infants, and in advising parents remember that the child's emotions must constantly be guided into the right channels.

From the beginning of life the infant should be left alone at least part of the time, should be helped to cultivate regular habits of living, have parents who are not over-anxious and cultivate obedience by being given:

1. A limited number of fair commands.
2. Have them enforced, only occasionally and only when necessary, by physical means.
3. Give the child encouragement.
4. Have the parents be patient and realize their responsibility to the child."<sup>12</sup>

The emotional needs of a child as given by one author are:

1. Need of security through congenial parents who love the child and provide him with the necessities of life.

2. Freedom, or opportunity to grow and have initiative.
3. A concrete ideal as in the parents.
4. Companionable parents that give unobtrusive suggestions.
5. A wise counsellor and confidante."<sup>13</sup>

Application of these needs would help to guide the emotions in the right channels.

#### PARENTS

In working with the child's emotions the general practitioner should remember that as a rule the most important route to the child is through the parents. The doctor usually works with the parents whether they are capable of bringing up the child or not. "Doctors often realize how appallingly ignorant most parents are in the ways of thinking and feeling of their own children and, most discouraging of all, are often unaware of their own ignorance."<sup>15</sup> Thus parental education by some means or other lies within the province of the doctor.

The unhealthy mental attitudes of the parent are often imitated by the child. "Children often noticing how anxiously their mothers view symptoms often make complaint merely to attract attention or excite expressions of pity or condolence to get their own way."<sup>14</sup>

#### SUMMARY

In summary it is seen that the doctor should be in an accepting frame of mind and willing to put forth the necessary effort in recognizing disturbed emotions in children. He should at least do these things although he may wish to refer the case to a specialist for treatment. When he does these things, the general practitioner exerts a worthwhile influence of major import upon the coming generation.

<sup>13</sup> Sayles, Margaret: *The Problem Child at Home*.

<sup>14</sup> Cameron, H. C.: *The Nervous Child*.

<sup>15</sup> Richardson, F. H., M.D.: *Parenthood and the Newer Psychology*.

#### ABSTRACT

##### SPONTANEOUS PNEUMOTHORAX COMPLICATING PNEUMOTHORAX THERAPY WITH RECOVERY AFTER PNEUMONOLYSIS: REPORT OF THREE CASES

Since November 1936 spontaneous pneumothorax has developed in three patients under the care of J. W. CUTLER, Philadelphia (*Journal A. M. A.*, July 30, 1938), following a therapeutic refill, which was the result of a tear in the visceral pleura at the base of an adhesion, with the adhesion remaining attached to the lung and preventing self closure of the perforation. In two, the spontaneous pneumothorax occurred two and fourteen months respectively after pneumothorax therapy was instituted and successfully maintained. Both of these patients had a simultaneous bilateral artificial pneumothorax. In the third patient, with unilateral collapse, the spontaneous pneumothorax developed immediately after the first refill. The complication failed to respond to the usual therapeutic procedures, including continuous decompression. Closed intrapleural pneumonolysis was carried out to sever the pleural adhesions and was successful in permanently abolishing the spontaneous pneumothorax in each case.

<sup>9</sup> Plant: *Practice of Psychiatry in a Community Clinic*; *J. Ped.* 9:557.

<sup>10</sup> van Waters, Miriam, Ph.D.: *Youth in Conflict*.

<sup>11</sup> Davison: *Pediatric Diagnosis*; *J. Ped.* 9:211.

<sup>12</sup> Caspary, *The Mental Health of Children: a Pediatric responsibility*; *South M.J.* 26:7.



## MARIJUANA

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Marijuana is the Mexican term for the dried leaves and flowers of *Cannabis sativa*, a big, vigorous weed that can grow in almost all temperate and tropical parts of the world. Synonymous terms are *Cannabis*, *Cannabis indica*, Indian hemp, and hashish. In underworld argot it is known as "Indian hay," "joy smoke," "greefo," "mu," "motta," "reefer," and "Mary Wanner," but by others is named charas, bhang or ganja. The plant is said to have been cultivated in China three centuries before Christ and was known to the ancient Arabs, Persians, Assyrians, Greeks, and Romans. It was brought into Mexico from the Eastern Hemisphere and from there its misuse is alleged to have been introduced into the United States through the immigration of cheap labor.

The plant has been cultivated for the fiber out of which rope, twine, bags, cloth, and hats are made; the seed, used as a constituent of commercial bird seed, or from which may be extracted a rapidly drying oil used as an ingredient of some paints and varnishes, or in the manufacture of soap and linoleum; and the flowers from which is obtained a sticky, greenish substance, cannabindon, a phenol aldehyde  $\text{OH} \cdot \text{C}_{20}\text{H}_{28}\text{COH}$ , but now largely replaced by more dependable drugs except in veterinary practice.

In addition to its legitimate uses there are the dangerous illicit practices of eating the resinous exudation or smoking the powdered leaves and flowers, habitually indulged in by approximately two hundred millions of mankind for its euphoric effect. Experimental work indicates that the symptoms produced by marijuana resemble those caused by alcohol. Moderate effects are characterized by general weakness, delayed movements, either a noticeable dulling of the mental faculties or mental excitation, loss of interest in the surroundings, and some mental confusion. After smoking two or three "reefers" the subject's ability to control his thoughts and actions is lessened. Continuity of thought is displaced by disconnected ideas; there is a feeling of exhilaration, euphoria, power, and energy. Illusions are common, the imagination is stimulated, perhaps to the point of delirium and sometimes hallucinations, pleasing, ludicrous, gruesome, or sensual are a marked feature. The affected individual may lose all sense of time and space. Exaggeration is the rule, minutes seem like hours. The first mild symptoms may be followed in some by a wild motor activity, in others by a markedly confused state or a profound stupor associated with vivid dreams.

It is said that the use of the drug by some mentally unstable persons may result in a maniacal

state after each excess. While in this condition, the slightest provocation may cause such persons to commit acts of violence. Although credited as the cause of many homicides, suicides, and assaults, the evidence is often unconvincing, especially with regard to sex crimes; some authorities believe it has little, if any, aphrodisiac action, but it may have this effect in some persons. "However, the material studied in the Court of General Sessions, New York County, 1932-1933,—where 2216 criminals convicted of felonies were examined psychiatrically, did not reveal a single case of confirmed marijuana addiction \* \* \* This group represented practically all the convicted Negro and white major offenders of that year in New York County. \* \* \* No crimes were committed in this group during or immediately after the intoxication. Of the sexual crimes there were likewise none due to marijuana intoxication."

The moderate use of marijuana does not seem to produce any bad effects but when it is used daily in large amounts its direct action on the cerebrum is alleged by some often to cause a form of insanity, characterized by despondency, outbursts of anger or manic excitement. Others believe insanity is more likely to occur if the addict also uses alcohol. The condition can usually be cured by proper treatment.

Although some authorities say the drug is not habit forming, others are convinced that addiction may be acquired after repeated and long continued use. It is quite probable that alcohol is more responsible as an agent for crime than marijuana. It is difficult to determine whether the moral degeneration observed in addicts is the result of the addiction or its cause. The subject's dominant emotions, especially at the time the drug is taken, influences its effect both in degree and kind. The genial man grows more cordial, the timid more cowardly, and the criminal more flagitious. The results appear to depend not so much on the amount of the fumes inhaled as on the individual's nervous organization, disposition, character and temperament. Hence, the anti-social, aggressive, and sadistic elements uncovered by the drug may be responsible for the crime rather than any crime-producing properties inherent in marijuana. It seems likely that if the patient had been normal he would probably not have acquired the addiction. Nevertheless, even the moderate use of marijuana is not without danger. Its well known action on perception, the lengthening of time and space, might be the cause of an accident if, for example, the smoker, were driving a car.

Recently considerable apprehension has developed which appears to have had its source, in

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part, from sensational articles that have appeared from time to time in various publications under such melodramatic captions as "Spread of Marijuana Held Menace to Country's Youth," "Sex Crime Epidemic Laid to New Dope," etc. Not only many laymen but some physicians are alarmed. However, a critical study of available data appears to indicate that the extent of the use of the drug in the United States is exaggerated; in addition, effective measures of control have been widely adopted. During the past ten years its misuse has caused all but two of our states to enact legislation against its distribution.

The marijuana Tax Act of 1937 enables the United States to control its interstate production, manufacture and use. In Indiana the uniform narcotic law of 1935 makes the possession of *Cannabis sativa* or *indica* by others than licensed persons illegal and subject to fine or imprisonment. A vigorously enforced law of this nature appears to be necessary because criminal, irresponsible, and easily influenced persons might be enticed by unscrupulous vendors and perhaps acquire the dangerous habit. However, wherever addiction is widespread it appears to be largely confined to semi-civilized tribes or to the dregs of the population. Hence, it does not appear probable that addiction to its use will be widely adopted among the better element.

In Indiana excessive use of *Cannabis* appears to be confined largely to Mexican laborers and to some extent to the more irresponsible element of the Negro population in large cities. It is alleged that vendors of marijuana cigarettes can be found in disreputable neighborhoods, but reports of addictions formed by high school students can not be verified. It is possible that a small group of students may have indulged, in an experimental way, in a "reefer" party. Even if supervision did not exist it is unlikely that many high school students would deliberately adopt a degrading habit.

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## PERFORATIONS IN THE ABDOMEN

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This paper deals with the perforative diseases of the hollow viscera, namely, those diseases or trauma of the stomach and the duodenum, the gallbladder, the appendix, and the small and large intestines, with the chief feature being the escape of the fluid contents from within into the peritoneal cavity through an artificial opening, with resultant inflammation of the peritoneum.

Perforations are dangerous and if not combatted by the surgeon death will surely be the

result. As a general rule, surgeons are satisfied to make a diagnosis of a surgical condition within the abdomen, permitting the details to be worked out on opening the abdomen. Many times, this is the best that can be done, but if possible an accurate diagnosis should be made, then the operation can be better planned. Likewise, there must be a definite knowledge between the symptoms and the pathological condition or confusion is the result even after the abdomen has been opened. The disease found must be responsible for the illness of the patient.

\* Presented before the Floyd County Medical Society at the January 14, 1938, meeting.

In the diagnosis of perforation, the element of time plays a most important role. If the case is seen within the first few hours the findings are quite different from that we find after many hours have passed. The earliest symptoms are helpful to determine the point of beginning and give an idea of the organ involved. As a rule, the point of greatest pain at the onset will indicate the site of perforation, as time passes the infection may spread and with it the picture may change. This initial pain is caused by the irritation of the gut wall and the unprotected peritoneum. Ultimately, peritonitis exists and is the dominating factor.

The placing of the incision should be over the point of the perforation; otherwise, the infection will be spread to noninfected areas burdening the patient further and lessening the chances of survival.

#### PERFORATIONS OF THE STOMACH AND DUODENUM

Many adjectives such as excruciating, diabolical and others have been used to describe the pain of a perforation. We all know that the patient suffers most severely. In a typical case, the patient is suddenly stricken with a terrible pain in the epigastrium, which at first comes in paroxysms. The face turns pale, the eyes open wide, and cold perspiration on the forehead show his terror and suffering. The pulse is rapid and thready, the breathing costal, the abdomen flat and boardlike, and the patient wards off examination of the abdomen because it increases his suffering. The repeating pain seems to be a spasmodic one caused by the irritation of the peritoneum by the gastric fluid escape. Gradually the fluid seeps from the perforation, working its way down over the omentum to the pelvis. A general inflammation of the peritoneum appears. During the first few hours the peritonitis can be referred to as a chemical one but as the hours go by the peritonitis changes to a bacterial peritonitis. At this stage it may not be so easy to diagnose the seat of the perforation; thus it is wise to evaluate the earlier symptoms. All cases do not begin in the acute manner, however. A perforation may be partly walled-off by adhesions making the onset gradual. Or, because of the great epigastric pain, morphine may have been given by a physician, and as the right abdominal pain increases the surgeon may minimize the pain at the onset to fit the epigastric pain characteristic of beginning appendicitis.

The examination of the abdomen reveals generalized muscular rigidity usually more pronounced on the right side, and if the exudate has reached the pelvis the left side of the lower abdomen may also be rigid simulating a primary pelvic disease. An acute appendicitis when lying lateral to the cecum and up towards the liver may give rigidity to the right side of the abdomen but the pain is a great deal less, resembling a slow leak.

In a case of intermittent perforation, adhesions usually protect the perforation so that only a

small amount of fluid escapes from the viscus at a time. Usually a perigastritis results and the course is less stormy. If the fluid reaches other parts of the abdomen it irritates and produces signs which may prove confusing to the diagnostician. A perforation may become walled-off and an abscess may result. This kind of an inflammatory process can so deform the stomach that it is mistaken for a malignancy. The temperature and leukocytosis may not be detected because of the very slow and gradual course.

On opening the abdomen there is usually seen an exudate and ordinarily the perforation is readily found. Infrequently, the lesser peritoneal cavity may receive the stomach contents through a rupture of an ulcer on the posterior aspect of the stomach. In these cases, one must consider a pancreatitis, and an examination which discloses the absence of the characteristic fat necrosis of the omentum and the hemorrhagic infiltration of the pancreas will relieve this organ of guilt. If the surgeon suspects that the appendix is involved, its exposure will clarify this situation. Only a gangrenous appendix can produce the acute pain that is comparable to the perforation of an ulcer.

#### PERFORATION OF THE GALLBLADDER

The diagnosis between a gallbladder colic and a beginning perforation proves to be a real problem. It is accepted that usually a cholecystitis has existed for an interval before the perforation takes place. The course is slow in those cases with the gallbladder partly walled-off before the impending perforation begins, and the pain may be down along the right side. The rupturing of a necrotic gallbladder is associated with an absence of pain for the first few hours and the patient feels better until the generalized peritonitis appears. Usually there is no accompanying shock with this type of perforation but it may occur. Rarely, we may see a sudden perforation of a gallbladder and in these cases the ruling out of a perforation of an ulcer can not be easily done. A man had been in my office on a business deal and as he was leaving he was seized with a severe pain in his upper abdomen. The diagnosis of a perforation of a hollow viscus was issued and at operation a hole was found in the gallbladder from which stones and bile had passed. The gallbladder did not show signs of ulceration nor of gangrene and no inflammation was present. It is assumed that the pain he had must be attributed to the irritation caused by the irritating fluid from within the gallbladder. Not infrequently pancreatitis is associated with cholecystitis.

#### APPENDICITIS

It is generally considered that an appendectomy is the easiest operation for the beginner. This is undoubtedly true for the chronic type of appendicitis but the operation for acute appendicitis may tax the resources of the surgeon as much as any common disease found within the



abdomen, and unless the operator is thoroughly familiar within the abdomen he may have plenty of trouble. Gangrenous appendicitis and the perforative type prove confusing in the diagnostic differentiation from all kinds of abdominal crisis. The severe abdominal pain at the onset is an important factor usually followed after a short time with the subsidence of pain. The temperature is not high and the pulse is not changed. There is only a slight discomfort in the appendiceal region and very little inflammatory change exists. The subsidence of the pain is believed to be due to the blockage of the appendiceal artery; the appendix dies and dead tissue transmits no pain. Perforation is likely and as the intestinal contents escape through the opening, generalized peritonitis follows. Some authors believe that this kind of appendicitis is the thrombotic type but all agree that perforation is constant sooner or later. Intestinal obstruction and mesenteric thrombosis in the beginning are confusing in the differentiation.

On opening the abdomen, and finding bile and stones or a flocculent, milky fluid that contains food particles, it is determined that the trouble is higher up in the abdomen, but if the fluid is of a bloody type the stomach and gallbladder are free from suspicion. Further, the identification of the appendix will show it to be large and black. If the appendix is not the offender, then a differentiation between intestinal obstruction, mesenteric thrombosis or some disease with disturbance of the circulation should be uppermost in mind.

#### PERFORATION IN TYPHOID FEVER

The scarcity of typhoid fever makes this type of perforation most rare to the surgeon. Sudden

pain in the right side of the abdomen and below the umbilicus during the course of typhoid fever must necessarily be regarded with suspicion for perforation. If the white count and differential is known before the pain and then can be made afterwards, if there is perforation, there will be an increase with a rise in polys. Local tenderness will give an additional clue. In some cases, the onset is different, with tympany and tenderness being the only findings. It appears that the consensus favors operation upon suspicion of perforation. These patients do well and are not set back much on using a spinal anesthetic or local so the surgeon need not hesitate to proceed. Through a lower right rectus incision the perforation can be found by sighting an adhesion or exploring the terminal ileum.

#### PERFORATION OF MALIGNANCIES

It is the sudden pain with the signs of inflammation that are the chief findings. The existence of the malignancy must be confirmed before the perforation can be diagnosed. The customary loss of weight with the general appearance of the patient have been present long before the pain started. Stomach carcinoma and malignancy of the sigmoid are most likely to perforate. On opening the abdomen, the thickened intestine with infection is present and one must decide if this is due to carcinoma or to inflammation. Diverticulitis must be considered at the sigmoid. The gut is thickened above carcinoma or a tumor constriction.

Perforations of the gastro-intestinal tract are serious affections and delay in the diagnosis and in the treatment may prove disastrous.

#### TREATMENT OF LOBAR PNEUMONIA WITH RABBIT ANTI-PNEUMOCOCCUS SERUM: PRELIMINARY REPORT

During December 1937 and January and February 1938 Elmer H. Loughlin, Richard H. Bennett and Samuel H. Spitz, Brooklyn (*Journal A. M. A.*, Aug. 6, 1938), treated sixty-nine patients with lobar pneumonia caused by types I, II, V, VII, VIII and XIV pneumococci with the homologous unconcentrated and refined rabbit anti-pneumococcus serum. The majority were of the poorer classes, and many were malnourished or addicted to the use of alcohol. Likewise, the majority had had no medical attention prior to admission. After study of these sixty-nine cases the authors found that: 1. It was possible to give the entire projected dose in one administration. As much as 500,000 units, included in a volume of 500 cc. of unconcentrated and refined rabbit anti-pneumococcus serum has been given in one administration without any untoward effects. Forty patients were treated successfully with one dose. 2. Bacteremia was controlled in most instances even when severe. The blood was rendered sterile when the entire projected dose had been given. Toxins were quickly neutralized, and in cases of type I and type II pneumonia a rapid development of tissue antibodies was obtained. 3. An immediate reduction of the toxemia was usually obtained when only part of the projected dose had been administered. The patient frequently stated that he felt better after the first 20,000 to 40,000 units had run in. The toxemia invariably disappeared after the entire projected dose had been administered. The patient usually fell asleep, despite the fact that insomnia may have been a major complaint and frequently fell asleep during the admin-

istration of the serum. 4. There was usually a rapid reduction of the temperature and of the pulse and the respiratory rate. The fall in the pulse and the respiratory rate was frequently coincident with the administration of the serum but most often occurred just prior to or together with the critical fall in temperature. Bradycardia was occasionally seen after the fall in temperature to normal. 5. Rabbit serum can be used without danger in the treatment of adults who have a sensitivity to horse serum or suffer from asthma due to horse dander. Rabbit antipneumococcus serum will not sensitize children to horse serum antitoxins, which may be necessary at later periods of life. 6. The incidence of serum sickness was lower with rabbit serum than with horse serum. The figure was 43 per cent for rabbit serum, as compared with 67 per cent for horse serum. Fever alone, of from 1 to 3 degrees F, occurred in 26 per cent of the patients who had serum sickness, urticaria in 60 per cent and arthritis in 14 per cent. 7. Chills following the administration of the rabbit serum occurred in 65 per cent of the cases. They were either mild or moderate and, other than the induction of warmth, did not need special treatment. The administration of rabbit antipneumococcus serum was preceded in most instances by the giving of acetylsalicylic acid. Although this drug limited the rise in temperature incident to the chills to 1 or 2 degrees and lessened the severity and duration of the chills, it did not decrease their frequency.



# THE JOURNAL

OF THE

## INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL  
PROFESSION OF INDIANA

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JANUARY, 1939

## Editorials

### PNEUMONIA

An editorial crusade against pneumonia, our third ranking killer, at a time when it should start reaching its highest incidence, should be a culmination of other well directed educational movements in the prevention of this drastic disease. Consequently we have witnessed during the past year a great deal of cooperation between State Boards of Health and interested organizations in the publicizing of results obtained in mortality reduction from the proper and early use of specific serums and the advancement in the use of newer drugs for the control of this menace. Slowly but surely we approach the time when the free distribution of specific type serums by the states will be universal; and slowly but surely it is not too much to anticipate the presentation of a form of chemotherapy which will find specific application for this disease.

With the general acknowledgement of the simplicity of the type diagnosis of the disease, the early use of specific serum offers the greatest hope for the reduction in mortality. This is particularly true of type 1 cases where the rate in some hands has been only 5 per cent. In type 2 cases, the mortality in some large series of cases has dropped to 18 per cent. The less said about type 3 cases the better, so far as our results are concerned. Fortunately, the incidence is rare, but its mortality runs from 60 to 70 per cent. Perhaps here we must look most hopefully for some chemotherapeutic agent. In spite of ardent claims of some biological agents, there is no specific antiserum for the whole group. Type 7 cases have responded in a similar manner to

type 1 cases. It is fortunate that 55 to 60 per cent of all our pneumonia cases can be classified under types 1 and 2, and since most serums available are a mixture of these two, its early administration where typing is not available can not be discouraged. The prohibitive cost, however, necessarily must imply some form of free distribution if the average patient is to secure its benefits.

While anticipating spectacular results from serum or other therapy, one must not lose sight of time honored and valuable assets in the management of pneumonia. Absolute bed rest and complete freedom from anything whatever except the effort to breathe is essential. We have all witnessed the period of the fresh cold air vogue, and again the close ventilation stages. Now patients are neither frozen nor smothered, but are kept at a comfortable room temperature with the amount of fresh air common sense dictates.

We have also witnessed the stages of forced high caloric feedings, high carbohydrate feedings, low caloric feedings, and a variety of other types of diets. Again common sense has finally settled upon an adequate nourishing diet with no attempt at forcing, but with emphasis on fluid intake to the extent that the patient eliminates 1,000 cc. of urine daily.

Symptomatic relief for conservation of energy and strength must always be given due consideration. The relief of pleuritic pain by morphine (with due regard for its contraindication in circulatory collapse, evidence of beginning pulmonary edema and slowing respirations) is a most valuable aid in providing rest.

Abdominal distention is most readily controlled by suitable return flow enemas but the use of dehydrating salt laxatives should not be employed since dehydration is not well tolerated by the pneumonia patient because of the tendency to cause circulatory collapse. Fluids by mouth and parenterally can obviate this condition.

Oxygen therapy ranks first in the treatment of pneumonia not because it cures but because it helps the patient to help himself. The familiar symptoms of relief with its use are too familiar to those who have seen it to require repetition, but it does emphasize the necessity for its early and continuous use, and not as a measure of last resort.

Digitalis therapy has long been advocated and questioned. The answer can be summed up briefly in the observation that if the patient were one who required digitalis if he did not have pneumonia, then he should have it. For cardiac failure, use digitalis; for circulatory collapse, do not use it.

There are other forms of therapy in pneumonia which present some interesting results. X-ray therapy in type 3 pneumonia may be said to be justified, since in some hands the results are encouraging, and since in this type everything offering any hope might be well advised. It is also of value in cases of unresolved pneumonia. Diathermy has had its advocates. It probably is

of some value in severe pain; otherwise its curative value is not conceded. Artificial pneumothorax has been intermittently used and may be a consideration in type 3 cases, providing one can be sure of the absence of adhesions.

The subject of pneumonia cannot be dismissed without mention of the use of sulfanilamide or its derivatives. A hopeful outlook has been given in the reports of its use in some hands, and it is to be hoped that it will prove to contain in some of its links the specific annihilator of all types. However, its use requires great care and more experience than it has had to date.

Pneumonia, the dread aggressor of youth and middle age and the sword bearer of death for the aged, still constitutes one of our major problems not only from a preventive standpoint but from a curative one as well. Combining all of our older good sense measures of nursing and medical care with the appropriate use of specific serums offers our best weapon in the reduction of mortality from this menace.

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## OUR COUNTY SOCIETIES AND THE YEAR'S WORK

Our county medical societies are our first line of defense. All plans for bringing adequate service to lower income classes must be carried out by the county organization. Facts must be correlated so that the individual physician may be better able to serve those in need of medical care both from a scientific and sociological standpoint.

The best plan so far devised, and one which approaches an ideal, has been put into effect by the Delaware-Blackford County Society in cooperation with the Muncie Academy of Medicine. The latter organization has been absorbed by the county society as a post-graduate assembly, and these organizations are working as a unit to enlighten and serve the public.

The plan (described in detail in this issue) uses the Indiana Plan as a guide. The program has been divided into two main projects: (1) Medical Education, and (2) Lay Education.

In the medical education project, individual members will take an active part. Frequently an unusual amount of ability and brilliance is discovered when an organization draws upon its own resources for program material. The society will collaborate with the hospital staff to form a hospital postgraduate teaching unit.

Lay education will be carried out through an intensive campaign using all means of communication. The radio will be used in presenting weekly health talks and for occasional broadcasts by prominent visiting physicians. Another effective means will be the education of high school students who will be given a series of talks on medical and health education topics. Through the students,

information will filter into the homes. To stimulate interest among the students, inter-high school debates and essay contests will be conducted. The plan also includes cooperation with the Red Cross in giving lectures to various groups.

These projects have been worked out in detail by the Delaware-Blackford County Medical Society. They have been carefully planned and their organization has shown a great deal of insight and understanding of one of the great problems of the day. This Society is meeting the situation squarely and with confidence in the success of their efforts.

The plan is published in detail in this issue in the hope that other societies will find it possible to undertake similar projects.

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## THAT MARRIAGE LICENSE COMMISSION

Several months ago, Governor Townsend appointed a commission to study the marriage license situation in Indiana because of the revelations made concerning several Hoosier "Gretna Greens." The commission, composed of fifty men and women, representative citizens of the Hoosier commonwealth, met in Indianapolis and spent several hours in a preliminary study of the matter. A special committee was named to delve into the question and report back to the general committee. We are advised that another meeting of the committee will be held in advance of the convening of the Indiana General Assembly in January.

The marriage license laws of our state are in need of drastic overhauling. The recent court decision to the effect that such licenses should be issued in the county in which the prospective bride is a resident would seem to have been sufficient to stop the influx of couples from our neighboring states, but it now appears that this is not true. Press stories are to the effect that couples continue to come into border counties, the prospective bride registers at a local hotel, and names that as her legal residence. Other subterfuges are resorted to in the evasion of this court decision. It is apparent that a law must be drawn that will be hole proof, indeed!

One feature of the present situation that is most obnoxious to all decent people within our state is the collection of "extras" by the county clerks in the districts complained of. Chief of these is the highly ornate "marriage certificate," a lithographed sheet bearing pictures of cooing doves, orange blossoms, and June roses, and selling for \$2.50 and "up" per copy. It affords a remunerative graft for the official who issues the necessary permit.

The thing that most interests the medical profession is the proposal that the new law incorporate a provision that all candidates for matri-



mony present a bill of health, particularly applying to the matter of venereal diseases. There can be no doubt as to the right of the state to demand such a provision, nor can there be a doubt as to the necessity for such a step. The State of Indiana pays a pretty price each year for the care of those afflicted with venereal diseases, particularly syphilis. Our state institutions are filled with these folk, and unless steps are taken for a radical means of control, there can be no end to this financial drain.

There is another problem. The marriage of the class commonly known as the feeble-minded should come in for no little consideration when the new law is being drafted. We pay a large annual amount for the care of the progeny of this class, whether they be confined in a hospital, in a correctional institution, or in our jails. There is neither rhyme nor reason in permitting these folk to marry and then to breed like guinea pigs, which many of them do! Indiana has too many residents of the moronic type and the time to stop this overproduction is before the couple reaches the marriage altar.

The commission has a large job before it, but having observed them in session, we believe they finally will come before the legislature with a bill that will do much toward eradicating many of the present faults in our marriage license law.

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## TOPIC OF THE MONTH

Each month during 1938, *THE JOURNAL* featured one of the more prevalent diseases within our State, diseases that have been the special study of medical men throughout recent years. The editorial staff decided to continue this feature during 1939 because the comments received from members and from readers outside of the state indicated a demand for it. Some of the subjects featured last year will be repeated; several new topics have been added to the list after much discussion by the entire editorial staff. Among these new subjects is malaria, a disease common in Indiana a few decades ago but more recently considered to be one of the rather rare afflictions save in the extreme southern districts. Whether it was due to an unusually wet summer, we do not know, but the fact remains that malaria was very common throughout Indiana last year, some localities having reported as many as four hundred cases.

Typhoid, a controllable disease, and one that for many years had ceased to give our State Board of Health much concern, appeared in several Indiana communities. One epidemic in northern Indiana furnished a very good example of modern "health sleuthing."

Later in the year there will be a number devoted

to dysentery. Some of the cases found in Indiana are of the imported type, particularly the type listed as tropical dysentery. In the same issue will be discussed a disease rare in Indiana a few years ago but now rather commonly seen—Rocky Mountain spotted fever. Tularemia also will have a place in this number.

These topics of the month are a part of the Indiana Plan of preventive medicine, a plan that has met with much favor over the country and has officially been approved by the American Medical Association. We believe it is a good groundwork for a postgraduate study course and, as such, we recommend that our county medical society program committees arrange to make a special study of the subjects from month to month. The entire list of subjects was published on page 692 of the December *JOURNAL*.

If desired, a speaker on any of these subjects may be obtained through application to the Bureau of Publicity, though we are sure each of our societies will find among their membership men who can give a very good paper on any of these topics. Several of them will admirably lend themselves to the symposium plan and can be worked out in a very instructive manner.

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## POSTMORTEM EXAMINATIONS

The Council on Hospitals and Medical Education of the American Medical Association, in its inspection and approval of hospitals, requires a certain number of autopsies in those institutions, ere they are classed as approved hospitals. That such examinations are of the most vital importance is recognized by the profession at large, yet the difficulties encountered in obtaining the necessary consent are numerous, for many reasons. The chief objections are based on varying degrees of mutilation of the body.

A young lady of our acquaintance, rather definitely connected with the medical profession, recently remarked that she had a horror of autopsies; she had in mind the condition in which the body of a relative was left after such an examination. On the other hand, we have a recent statement: "The postmortem examination is the most powerful stimulus to high professional endeavor that exists." It is true that these examinations provide a field of study that cannot be found elsewhere. Further, these examinations are often of great importance to the family of the deceased; they may reveal conditions of a more or less hereditary character, conditions that if known in time may prevent a similar recurrence in others of the family.

Numerous other advantages might be cited to show the need of the examinations, but these are so well known to physicians as to make their



repetition unnecessary. To repeat, the objections to such explorations chiefly are based upon the condition in which the body is left. Too frequently the embalmer cannot turn out a satisfactory piece of work if the larger vessels have been severed and left without proper ligation. Then, too, there is the objection that in asking for such an examination the family is told that only a small incision will be made, when it definitely is known that such is not the case.

Present day morticians are very glad to cooperate with the physician in making these requests and it is only fair to them that we acquiesce in the requests they may make. As a matter of fact, many of these examinations can be very well done even after the body has been embalmed. In those cases in which such order cannot well be carried out, the examiner will do well to confer with the mortician as to his wishes in the matter.

The medical profession of late has done a very good job of propagandizing and a little attention to the matter of postmortem examinations will do much to remove the many objections that exist at this time.

## Editorial Notes

That the New Year of 1939 may bring to all our readers the choicest of blessings and a surcease from the extraordinary cares that have beset us in the recent past is the wish of the editorial staff of THE JOURNAL. That the protagonists against Medicine will have been put in their respective and proper places is an added and ardent wish.

The December JOURNAL included the complete roster of the Indiana State Medical Association for 1938. For some years past we have included this list in the December issue and many of our members find it a useful compendium. Put that number aside where you may find it easily, for you will have frequent occasion to use it throughout this year.

Dr. Walter F. Carver of Albion, well known to Indiana physicians and beloved by all who know him, was unable to attend the annual convention this year because of pneumonia. His friends will be glad to know that he has completely recovered and is again attending to his practice and to his duties as secretary of the Noble County Medical

Society which he has served almost continuously since 1896.

The Postgraduate Correlating Committee of the Missouri State Medical Association has adopted the "topic-of-the-month" plan for the coming year. The official organ of the society, the *Journal of the Missouri State Medical Association*, begins the program with their December issue, featuring the subject of pneumonia. The January number will stress the importance of the study of highway accidents. The committee plans to have the county medical societies of the state discuss these problems at their monthly meetings.

Some slight variation in figures relating to pneumonia mortality in the various groups will be observed in the original articles in this issue. The figures are not erroneous; the variations are due to the fact that the writers were studying different groups of cases at different periods of time.

Our members are to hear a great deal about postgraduate work during the coming year; the subject is now before the Council and the Executive Committee, with every prospect of some plan being evolved whereby practically every member of the Indiana State Medical Association will have ample opportunity for several postgraduate courses at his very door. This suggested plan will serve as a beginning point and we trust our local societies will take full advantage of it.

According to recent reports, the Vanderburgh County Medical Society probably will install a full time executive secretary. At its November meeting, the Lake County Medical Society voted in favor of such an arrangement and will begin the new year under this plan. All larger county medical societies will do well to consider this matter seriously. How can a busy physician take the time to attend to the rapidly increasing duties that confront a secretary? No busy physician can carry on such work efficiently. The only solution, it seems, is a full time secretary.

"Typhoid Mary," one of the most colorful figures in medical history, is dead at the age of 70. More than thirty years ago it was discovered that this woman, employed at various places in the New York district, was a typhoid carrier. She was said to have been responsible for no less than ten serious outbreaks of this disease, but after some eight years she was placed under detention for the remainder of her life in a New York City hospital.

During the latter years of her detention her stools were used by the local health department as control mediums in the culture of typhoid bacilli.

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Whenever you accept an invitation to prepare material for THE JOURNAL and are advised that same should be in the JOURNAL office not later than a stated date, we ask that you make every effort to have your copy in at the designated time. Material for THE JOURNAL is planned several weeks ahead of publication, each number being outlined as to pages, etc. Delayed material not only causes confusion but often necessitates a change in several pages of the magazine. With limited help in the headquarters office, the management of THE JOURNAL often is hard pressed to find the way out when promised material is not forthcoming at the time agreed upon.

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Tularemia, commonly known as "rabbit fever," continues to be prevalent in the Hoosier state, numerous cases already having been reported. The State Board of Health received reports of thirty-three cases in 1937, twenty-four more than during the previous year. Due to an increased supply of rabbits this year, together with the fact that hunting weather has been unusually good, we may expect an increase in the number of cases during the present season. Care in the handling of rabbits is advised, even though the rodents show no external signs of skin sore. Rubber gloves will prevent infection and, of course, thorough cooking precludes all possibility of contracting the disease.

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A very interesting magazine recently has made its appearance—*The American Journal of Medical Jurisprudence*. Published by the American Medical-Legal Association in Boston, the magazine has for its editor-in-chief Dr. Frederick C. Warnshuis, well known to physicians over the nation because of the various official positions he has held with medical organizations. The editor's years of experience and good judgment are reflected in the pages of this very readable magazine. Dr. Warnshuis and his editorial staff are to be congratulated upon the success of their first efforts, and we extend best wishes for a maintenance in future issues of the high quality that characterizes the issue for November.

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The New York Tuberculosis and Health Association recently released some figures concerning the death rate from the "Great White Plague" that may, at first glance, seem somewhat discon-

certing to those of us who had believed this disease was on the wane. These figures show that in the larger cities the disease has increased in frequency and the death rate therefrom has increased in proportion. For example, in upstate New York the death rate from this cause was 39.5 per one hundred thousand population, while in New York City it reached 116. In our own capital city, Indianapolis, the death rate was 78, the remainder of the state showing a marked lowering from this rate. While it is true that decided improvement in the tuberculosis picture has taken place in the last two or three decades, the above findings serve to indicate that there is yet much to be done.

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Hancock County Medical Society members made their December meeting an open forum to discuss the following questions: "Is the Hancock County Medical Society a trust? Are we meeting the demands of the citizens of Hancock County with regard to their physical well-being? Are we actively engaged in giving out information relative to health problems and disease prevention? What are you doing to aid or prevent socialized medicine? Does Hancock County need a general county hospital? Does it need a county health nurse? How many welfare workers do we need?" It is hoped that there was a 100% membership attendance and we shall be interested in knowing the results of the meeting. These are questions that might well have the attention of each county medical society in the State of Indiana. Hancock County's program will bear repeating in every county.

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A young, Hoosier-born desperado recently paid the extreme penalty for his short career of crime when his life was snuffed out via the electric chair. He had made the unique plea that he be put to death in some manner other than "the chair," and suggested that he be turned over to the medical profession for experimentation, that he wished to "be infected with deadly germs, then to die under the eyes of medical men." In a Western state, and at about the same time, a convicted youth chose to die via a firing squad, having first consented to having an electro-cardiographic record made of his death. Spectacular? Yes, indeed! Just what went on in the minds of these condemned men ere they made these proposals is, of course, unknown to us. Just how much might be learned from such proposals is a question; what actually takes place at the moment of death is not understood. About the only thing that registers with us, when we think of these two cases, somewhat similar in character, is a reaffirmation of the old, old adage, "Crime does not pay!"



The art of photography has in recent years become an important adjunct to medicine, since the actual picture is far more illuminating than the average drawing. Many refinements have been added to this phase of the art and now we have photographs that add materially to our medical literature. In the past few years Bedell, of Albany, New York, has perfected the photography of the ocular fundi to a degree that seems impossible; other enthusiasts have worked out means of photographing other body structures, thus adding to our store of permanent portrayals of bodily conditions. Now comes Galloway, of Evanston, Illinois, with a description of his work in the photography of the uterine cervix (*Journal of the A.M.A.*, November 26, 1938). He uses not only the black and white photography, but takes full advantage of color photos, which give the pictures a third dimension, that of depth. The latter, however, do not lend themselves to use with the stereopticon, and thus their field of usefulness in illustrating talks on these subjects is limited. The method used is described in detail and the physician who is a devotee of photography will have little trouble in making such pictures.

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A visit to the A.M.A. headquarters in Chicago a few days ago was planned for the purpose of obtaining information from one of the numerous departments in the busy eight-story place. We "budgeted" a few minutes of time for the errand, but we spent the greater part of the afternoon there and enjoyed every minute of it. Morris Fishbein was, as usual, busy; he was dictating material for a book. But he stopped and entertained us in his inimitable style. He told of having attended a meeting in Muncie, and he was very enthusiastic about a similar trip that he is to make to Anderson early this year. Morris likes to come to Indiana. Then we called on Olin West, veteran secretary and general manager of the American Medical Association, and had a lengthy chat with him. As usual, he was up to his neck in his duties, just then being engaged in a study of one of the hundreds of plans submitted in connection with hospital insurance. A.M.A. department heads are forever busy but are glad to take time out to talk to visitors. We are authorized to extend to all Hoosier medics a cordial invitation to call at 535 North Dearborn Street when in Chicago. You will be welcome, and if you have time at your disposal, a guide will conduct you through the entire plant.

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The "smog" problem continues to interest our larger cities. Indianapolis newspapers have begun their annual campaign looking toward the

elimination of as much smoke as possible. The records of last year showed that many tons of coal soot fell in Indianapolis each day, and brought about conditions not conducive to the well being of the citizens. As has been pointed out, an excess of smoke, whether it be from the home-fired furnace or from the boiler battery of a large manufacturing institution, means not only a health menace but it also means poor combustion, hence an added expense. The smoke problem long has bothered our cities, and it seems that progress toward its elimination or control is mighty slow. Physicians are aware of the health menace, and only a few days ago, two physicians were overheard discussing the soot-fall in Indianapolis. One rather heatedly asked, "Why, do you know that the condensation of smoke in the air in Indianapolis is greater than it is in Pittsburgh?" His tone intimated boundless indignation and contempt for the existence of such a condition. We cannot vouch for the truth of the statement, but we do know that no Indiana city wants Pittsburgh's title of "smoky city," though it seems probable that Indianapolis may fall heir to the name unless the situation is corrected soon.

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The rising death rate from appendicitis continues to be a much discussed topic in medical literature and is causing much concern in medical circles. Among the many discussions of the subject that have come to our attention during the past few months we must give the palm to that of Massie, (*Kentucky Medical Journal*, December 1938, page 550) for the following paragraph:

"The general opinion has been that education of the doctor and the public is the principal protection against this disease. If the public can be taught not to take cathartics for a 'pain in the stomach,' to call the doctor even for trivial abdominal pain, and if the doctor can be taught to have his patient operated on at once and that the patient's temperature is no guide to a diagnosis; if these things are universally known and practised, then appendicitis will no longer show a rising mortality curve. This has been the theme song of the educational drives against appendicitis and I am in complete agreement. But it is high time that we were turning our attention to another theme which can be introduced without detracting from the importance of the first. Mortality may be reduced by careful surgery quite as truly as by education of the public and the doctors. This study in mortality is addressed directly to those who operate on people with acute appendicitis with a plea that each make a similar study of his own patients. Such a study will show better than any paper on the subject where the dangers lie and along what lines improvement may be expected."



# *Secretaries' Annual Conference*

Green Room, Fourth Floor, Indianapolis Athletic Club,  
INDIANAPOLIS

Sunday, January 22, 1939

## PROGRAM

- 12:30 P.M.—Call to order and opening remarks by A. M. Mitchell, M.D., Terre Haute, Chairman.
- 12:45 P.M.—Introduction of E. M. VanBuskirk, M.D., Fort Wayne, president, Indiana State Medical Association.
- 1:00 P.M.—"The National Medical Situation," Walter E. Vest, M.D., Huntington, West Virginia, President, Southern Medical Association, and member of the Committee of Seven of the American Medical Association.
- 1:30 P.M.—"Mental Hygiene Clinics," George C. Stevens, M.D., Indianapolis, director, Division of Medical Care, Indiana State Department of Public Welfare.
- 1:40 P.M.—Farm Security Administration, M. E. Hays, Indianapolis, Regional Cooperative Specialist, and Frank V. Meriwether, M.D., Indianapolis, Assistant Medical Director.
- 2:00 P.M.—Outline of Delaware-Blackford County Medical Society Plan for Postgraduate and Public Health Education, Donald A. Covalt, M.D., Muncie, secretary, Delaware-Blackford County Medical Society, and L. G. Montgomery, M.D., Muncie.
- 2:15 P.M.—Indiana State Board of Health, Verne K. Harvey, M.D., Indianapolis, director.
- 2:30 P.M.—"Hospital Insurance," F. K. Helsby, Executive Secretary, Jackson County Medical Society, Kansas City, Missouri.
- 3:00 P.M.—Questions.
- 3:10 P.M.—"Legal Problems," Albert Stump, Indianapolis, attorney for the Indiana State Medical Association.
- 3:20 P.M.—Seventh inning stretch.
- 3:30 P.M.—"Legislative Problems," Norman M. Beatty, M.D., and J. William Wright, M.D., Indianapolis, co-chairmen, Committee on Legislation and Public Policy of the Indiana State Medical Association.
- 3:45 P.M.—"Some Observations on Plans to Establish District Health Units," J. Harvey Crowder, M.D., Sullivan.
- 4:05 P.M.—Round table discussion of such subjects as:
- "Medical Survey,"
  - "Free Choice of Physician vs. Contract Practice,"
  - "Proposed Increase in Society Dues,"
  - "Full-Time Secretary,"
  - "Compensation for Delegates,"
  - "Psychiatric Clinics," and
  - "Care of the Indigent."
- 5:05 P.M.—"THE JOURNAL of the Indiana State Medical Association," E. M. Shanklin, M.D., Hammond, editor.
- 5:10 P.M.—Remarks by Thomas A. Hendricks, executive secretary, Indiana State Medical Association.
- 5:15 P.M.—Election of chairman for 1939.
- 5:45 P.M.—Dinner, ballroom, fourth floor, Indianapolis Athletic Club.  
Introduction of President-Elect, Karl Ruddell, M.D., Indianapolis.  
(Principal speaker will be a prominent out-of-state physician, not definitely scheduled at press time.)

All members of the Indiana State Medical Association are invited to attend. Dinner will be free to the county medical society presidents and secretaries. For others, the charge will be \$1.25 per plate.



## President's Page



### PNEUMONIA

The winter months bring pneumonia, one of the most vicious of all illnesses. In combatting the disease, it is necessary to educate the public, and support the efforts of physicians and research workers to the end that they all will lend their cooperation in the fight against pneumonia.

The third greatest cause of all deaths in the United States, pneumonia attacks chiefly the very young and the old. Of the two kinds of pneumonia, the adult usually has the lobar type while the infant and young child more frequently has bronchopneumonia.

The etiology of pneumonia has been found to be the pneumococcus in ninety-six per cent of all cases. The remaining four per cent are due to streptococcus, staphylococcus, or the bacillus of influenza of Pfeiffer, or Friedlander's bacillus.

In 1911, Neufeld and Handel found that the pneumococci varied and divided them into three distinct groups, and a fourth heterogeneous group. Later workers subdivided the fourth group so that now there are types 1 to 32. Only about three per cent of cases fail to fall in specific groups by the newer methods. Types 1 and 2 are responsible for more than half of all cases of pneumonia, type 1 causing more than thirty per cent and type 2 more than 20 per cent. Type 3 pneumococcus causes between nine and ten per cent of all cases of pneumococcal pneumonia, and the remaining thirty to forty per cent of cases are caused by the pneumococci of the remaining types 4 to 32.

With the advent of serum therapy, the death rate from pneumonias due to the pneumococcus has been considerably lowered. It is vitally necessary that the type of pneumococcus be determined before any serum therapy can be instituted. For this procedure, a specimen must be submitted for bacteriologic examination representing exudate expectorated from the lung. The type is determined by the swelling of the pneumococcus in the presence of the right type of serum.

Pneumonia progresses rapidly. It is an emergency. Each day's delay in the administration of serum lessens the possibility of recovery. Because serum therapy frequently determines the outcome in a given case, each patient is entitled to typing studies and to serum therapy if it is available. Reduction of mortality by fifty per cent and more has been reported following the use of type-specific anti-serum. The effectiveness of serum therapy is multiplied by early administration. Some authors state that it should be given not later than the third day; few recommend it after the fourth day. Thus it is rarely permissible to withhold serum because of mild initial symptoms since there is no dependable method of forecasting the eventual severity of the disease. Adequate doses on the first or second day of the disease is ideal and frequently leads to prompt termination of the illness by crisis.

One of the most important factors is educating the public to the fact that pneumonia is an emergency, that it is a dangerous disease, that it is highly contagious, and that specific serum saves many lives. They must also be constantly reminded that colds should be properly cared for because three-fourths of all pneumonia cases begin with a cold. The physician should be summoned early so that every resource of science may be called into use. This is, indeed, a difficult task, but with perseverance and untiring effort, the public will cooperate and consequently will help to lower the mortality from pneumonia.

*E. M. Van Buskirk.*

## Middletown Modernizes Medicine

### THE DELAWARE-BLACKFORD COUNTY MEDICAL SOCIETY PLAN

#### Introduction

Organized medicine has been faced through the past few decades with increasingly rapid changes both in the professional field and in the field of social economy. Within the past decade these changes have been brought to a head by the nationwide alterations of the economic structure. As a consequence of these alterations, organized medicine has of necessity assumed wide and varied responsibilities in addition to the individual physician's responsibility to his patient. The Indiana State Medical Association has offered the Indiana Plan as a part of its solution to these problems. At the last annual meeting of the Indiana State Medical Association Dr. Herman M. Baker, in his presidential address, suggested further expansion of medical post-graduate education as well as lay education. The Delaware-Blackford County Society, realizing its responsibilities to the state and national organizations as well as to our local organization and to the people of our communities, has developed a program which it is believed will be helpful in solving many of our problems and in furthering the application of modern organized medicine to the people of the nation. This program is presented here in the hope that it may be useful to county medical societies elsewhere.

#### Characteristics of the Society

The Delaware-Blackford County Medical Society is one of the medium-sized county societies of the state. Before discussing our program in detail, it might be well to define briefly the characteristics of this society. The membership is composed of 82 physicians from the two counties, and *every eligible physician is a member of the society*. The total population of the two counties is 105,000. The county seat of Blackford County is Hartford City, with a population of approximately 7,000 people; the county seat of Delaware County is Muncie with a population of approximately 50,000 people. There are, in addition, 23 towns each with less than 2,000 population in the two counties.

#### THE PLAN

The program which we are presenting has been divided into two parts: medical post graduate education and lay health education. The medical education has been developed along the lines of the Indiana Plan and the suggestions as presented in the president's annual address. We are particularly fortunate in having exceptionally fine facilities available for post graduate teaching at the Ball Memorial Hospital. Through the active cooperation of the hospital staff and the hospital

administration, these facilities have been made available to the fullest extent. The lay educational part of our program has been planned to enable the members of our society to fulfill their professional obligations to the people of our communities as fully as possible, through bringing to them modern preventive medicine in a usable and understandable form.

With this introduction we will offer our program in outline form, dividing it into its various classifications.

#### I. MEDICAL EDUCATION

##### (1) County Society Program for 1939

In accord with the suggestions as outlined in the Indiana Plan, this program has been prepared for the entire year, the subjects to follow the suggested schedule of the Indiana Plan. Members of the society have been designated to prepare the papers and in most cases other members have been assigned to lead the discussion. Topics of the month are divided when advisable and separate speakers are assigned to these divisions. This has the advantage of covering the topic thoroughly and permitting more members to take part in the program. Our program for the year calls for the participation of seventeen members. Whenever practical, moving pictures and lantern slides are used to augment the presentation. The titles and speakers are referred to the Indiana State Medical Association for use in their post graduate program. These are available for use in other counties, whenever requested.

##### (2) Post-Graduate Study

###### (a) The Muncie Academy of Medicine

The Muncie Academy of Medicine has occupied a prominent place in the medical life of Eastern Indiana for the past 25 years. It has been instrumental in bringing before its members a great number of nationally known speakers and has, in fact, functioned as a post graduate medical program. It has always been conducted by the members of the local county society.

###### (b) Weekly Hospital Ward Rounds

Ward rounds are held every Sunday at 9:30 a. m., and are conducted by members of the county society who are directing the various services in the hospital. Interesting service cases are presented and private cases are used at the discretion of the physicians in charge. These ward rounds are integrated with the teaching of the house staff of internes and residents, but they are



designed primarily for the members of the county society.

(c) **Clinical Pathological Conferences**

The conferences are held monthly and are designed to utilize the postmortem and surgical pathologic material of the hospital, and whenever advisable clinical cases are shown which illustrate interesting pathologic conditions. The material is presented by the house staff and discussed by the general staff.

(d) **Hospital Staff Meeting**

These meetings are held monthly in the auditorium of the medical building of the hospital. A study is made of the hospital records of the month and the statistical study of the month's work is analyzed. The scientific part of the program consists of a presentation by the resident and attending staff of cases illustrative of some special medical topic.

(e) **Surgical Staff Meetings**

The surgical staff of the hospital meets with the house staff of internes and residents every two weeks for the discussion of all surgical deaths for the preceding two week interval. Clinicians in attendance on the cases under discussion are invited. Surgical and postmortem pathologic material is presented by the pathology staff in the form of gross specimens and microscopic projections. Radiologic studies made on each case are discussed by the radiologist.

(3) **Study Clubs**

Groups of five or six members have been formed in the society for the review of current medical literature and the study of newer medical problems.

(4) **Practical Nurses' Training and Registry**

Many cases in the home are unable to afford the services of a registered nurse, and for this reason we feel it justifiable that some control be maintained over the practical nurses in the community. To this end it has been arranged, in cooperation with the Indiana Employment Service Bureau, for the establishment of a registry of practical nurses. Members of the county society pass judgment on the ability of the practical nurses registered, and only those nurses whose work is found satisfactory are permitted on the registry.

(a) **Practical Nurses' Training Course**

In order to assure the suitable training and background of these practical nurses, a program of lectures and demonstrations has been arranged by members of the society and hospital staff. The demonstrations include instruction in dietetics, infant feeding, and nursing routine.

(b) **American Red Cross Course in Home Nursing**

This course will be conducted through the cooperation of the American Red Cross.

An examination is conducted at the termination of each of the courses.

(5) **A Permanent Executive Secretary for the County Medical Society**

It is proposed that, sometime in the future, our county society will find it necessary to employ a full time executive secretary. This matter is being held under consideration for this year.

(6) **Out-Patient Clinic at Ball Memorial Hospital**

An out-patient clinic is being considered by the Board of Governors of the Ball Memorial Hospital in cooperation with the Delaware-Blackford County Medical Society and the hospital staff. This will be designed to care for the indigent patients of the community. Members of the hospital staff, all of whom are members of the county society, will conduct these clinics. The educational facilities of the clinics will be available to both the general and the house staff of the hospital.

(7) **Exhibit of Delaware-Blackford County Program for the Secretaries' Conference**

In view of the general interest aroused by the proposed medical and lay education program of the Delaware-Blackford County Medical Society, it is planned that an exhibit be prepared outlining our program and that this exhibit be presented before the Secretaries Conference of the Indiana State Medical Association. This exhibit may also be shown at the next annual meeting of the American Medical Association in St. Louis.

## II. LAY EDUCATION

(1) **Health Exhibits**

A series of monthly health exhibits will be prepared under the auspices of the county society to form a basis for a health education program. This program will be designed to follow, as nearly as possible, the "Topics of the Month" of the Indiana Plan and will, therefore, be directed for a great part along the lines of preventive medicine. Various lay organizations will be asked to take an active part in directing the interest of the community toward these exhibits. The Delaware Federation of Clubs, comprising twenty-seven clubs and seven hundred women, have offered their assistance in carrying out this program as a Federation project. Material for these exhibits will be obtained from the Indiana State Medical Association and the American Medical Association, as well as various other sources. These exhibits will also include moving pictures on pertinent and related subjects.

(2) **Health Education Lectures**

Members of the county society are prepared at all times to appear before lay groups to speak on medical subjects of interest to the layman, and a committee of the county society has been appointed to supply speakers on request. This part of our

program has been in practice for several years. Material for these lectures is obtained from a wide variety of sources, and in recent months the speakers have particularly directed their attention toward the national campaigns for the control of Syphilis and Cancer.

### (3) Radio Programs

(a) Weekly radio talks to be presented will follow a broad program of health education, especially on preventive medicine. These radio talks, as far as possible, will follow and be correlated with the monthly health exhibits. Prepared radio talks on several thousand subjects may be obtained through the American Medical Association. These talks may be read either by lay individuals under the auspices of the society or by members of the county society if preferred. We are obtaining the assistance of the Health Department of the Ball State College.

(b) Occasional broadcasts are given by prominent visiting physicians who are appearing before the Muncie Academy of Medicine. Our last broadcast was by Dr. Morris Fishbein on the subject of "American Medicine and the National Health Program."

The radio portion of our program is made possible by the cooperation of our local broadcasting station, WLBC, which supplies us with broadcasting time, free of charge.

### (4) High School Health Talks

Members of the society speak before the convocations of the various high schools of the community, directing the pupils' attention especially along the lines of preventive medicine and social economics of medicine. We feel that this part of our program is of exceptional importance in that it educates the high school students who will, within a few years, be the leaders of the community.

#### (a) Inter-High School Debates

The county society is sponsoring a series of inter-high school debates on some subject which will be correlated with the convocation lectures. This will give the students an opportunity to crystallize in their minds the material presented to them.

#### (b) Inter-High School Essay Contests

These will be conducted along the lines of the debates, and will afford an opportunity for a larger number of students to participate in the program. A year's subscription to *Hygeia* and a cash prize will be given to the winners of the debates and the essays.

### (5) County Fair Health Exhibit

An exhibit is prepared every year for display at the Delaware County Fair. The exhibit this year was on syphilis. The material and an attendant were supplied by the Indiana State Board of Health.

### (6) Red Cross Education Work

(a) Members of our society give talks to first aid classes of the highway accident division of the Red Cross.

(b) Talks are given to the Red Cross classes of the Industrial First Aid groups.

### (7) Hospital and Health Insurance

The House of Delegates of the American Medical Association has recently endorsed the principles of hospital and sickness insurance and it therefore appears desirable for the medical profession to take an active part in guiding the establishment of these projects. With these facts in mind the county society is making a study of various forms of hospital and sickness insurance.

## CONCLUSIONS

The program presented above has grown gradually out of the varied activities of the Delaware-Blackford County Medical Society. Much of the program has been carried on for many years, while other parts have been added from time to time. It is apparent to our members that the plan in its entirety will take time for its full development. New activities of merit constantly are being added, as the result of the suggestions of various members of the local and state medical societies. At times it has seemed that the fulfillment of our plans would be too great an undertaking, but in spite of periods of doubt it has been an increasing satisfaction to see how the cooperation of all the society members and the able assistance of various lay groups and individuals have made it possible to cope with any difficulties that have been presented.

We are submitting this plan through our JOURNAL in the hope that parts or all of it may be useful to other county societies in the preparation of their county programs.

JOHN H. BOWLES, M.D., President  
Delaware-Blackford County Medical  
Society.

JOSEPH C. SILVERS, M.D., President-Elect  
Delaware-Blackford County Medical  
Society.

LALL G. MONTGOMERY, M.D., President  
Muncie Academy of Medicine.

DONALD A. COVALT, M.D., Secretary  
Delaware-Blackford County Medical  
Society.

ANNUAL CONFERENCE OF  
SECRETARIES WILL BE HELD  
IN INDIANAPOLIS, JANUARY 22.  
PLAN TO BE THERE. PROGRAM  
ON PAGE 34.



## CARE OF THE PREMATURE INFANT IN RURAL AREAS OF INDIANA

BUREAU OF MATERNAL AND CHILD HEALTH,

INDIANA STATE BOARD OF HEALTH

Pediatricians, obstetricians, nurses, and public health officials are generally agreed that if the infant mortality rate in Indiana is to be lowered, there must be provided better facilities for the care of the premature baby. Statistics show that the death rate in premature infants still remains shockingly high, notwithstanding the increased knowledge as to their care and the better obstetrics that is now being done in our state.

Several of the larger cities of the United States, such as Chicago, New York, and Baltimore, have provided more adequate care of the premature baby. This has been done by early reporting of premature births, and providing properly equipped transportation facilities to hospital centers where expert pediatric and nursing care can be given to the premature baby. The Chicago plan of Doctors Hess and Bundesen has attracted nation-wide attention, and their results in lowering the premature death rate have been very encouraging. Several states working in cooperation with the maternal and child-health program of the respective states have set up interesting premature programs. One of the most successful programs is being conducted in the State of Massachusetts, where the State Legislature has enacted a law making all premature births reportable within a few hours after delivery. Ways and means are then provided for transporting these infants into premature centers where scientific feeding and pediatric care are begun early.

While Indiana is at present not prepared to launch an active state-wide program for the care of the premature baby, such a program is planned for the near future. This set-up cannot be properly organized until the various county and private hospitals scattered throughout the State are able to receive and properly care for these infants. Since the nursing care of the premature infant is so important, the Bureau of Maternal and Child-Health of the Indiana State Board of Health will probably offer scholarships to nurses who are particularly interested in fitting themselves for this specialized type of nursing. Likewise, short intensive courses designed for physicians in the care of the newborn and premature infant will be given both in the local hospitals, and at the Indiana University School of Medicine.

Already some counties in Indiana have started programs of their own for the care of the premature. Of special interest is the work being carried out in connection with the nursing home delivery service which is provided in Perry County through the Bureau of Maternal and Child-Health of the Indiana State Board of Health. The accompanying picture shows an improvised unit which

is used for transporting premature infants from their homes to the hospital. Study of this photograph shows that it has been made by placing a small basket inside a larger basket with cover. An old x-ray film, which has been soaked until it is clear, makes a window in the lid. The hot water bottles, placed on each side of the basket and one in the bottom, furnish the heat. The small basket is lined with cotton between outing flannel, and the outer basket is lined with rubber sheeting to keep air out, and in case of rain, to help keep the baby dry. There is provided a small oxygen cylinder and water bottle.



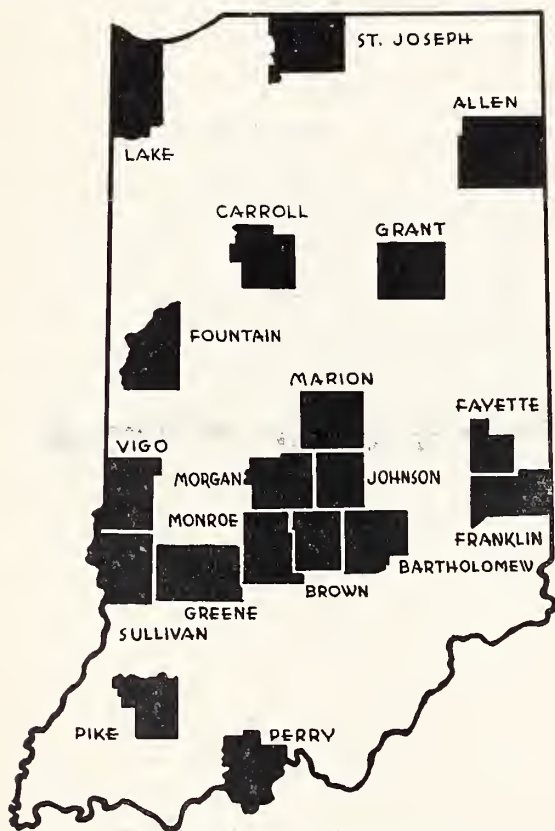
Another interesting part of the Perry County project is that the entire community unites in this program, as the maternity nurse who has constructed this portable incubator obtained the baskets from the community merchants, the x-ray film from a local physician, the hot water bottles and cotton from the loan closets of one of the local ladies' clubs, and the oxygen tank was donated by the American Legion Posts of Tell City and Cannelton. It is this type of community cooperation and the spirit of the American citizens to help themselves, that actually makes progress in public health in any community. It is hoped that until a more complete program can be provided, local communities will follow the example set by Perry County.

### OFFICIAL MEETINGS IN JANUARY:

- Jan. 22—Annual Secretaries Conference,  
Indianapolis Athletic Club
- Jan. 29—State Council Meeting,  
Indianapolis

## DIPHTHERIA IMMUNIZATION

Following the general increase in the incidence of diphtheria which has occurred sporadically throughout Indiana during the past six months, a number of diphtheria immunization campaigns are being organized and carried forward through the cooperation of the local county medical societies, the county public health nurses, local groups which have child welfare as one of their projects, and the Indiana State Board of Health. In most instances the local nurses are meeting with the local county medical societies and laying out plans which will be most suitable to the particular locality in which the program is to be organized.



*Map shows counties in which the county medical societies have cooperated in carrying out the diphtheria immunization campaign.*

There are a great number of ways in which the local county medical societies choose to carry out their programs. The Bureau of Maternal and Child-Health of the Indiana State Board of Health is always anxious to cooperate with these interested groups in a consultant capacity. Also the Bureau still has available, to the local areas especially in need of an immunization program against diphtheria, toxoid which can be furnished through the request of the county health officer. Any county wishing to conduct an immunization program should organize through the county health

officer, who in turn will set up a program in cooperation and under the direct supervision of the local medical society.

During the month of October, the Indiana State Board of Health assisted the general program in Terre Haute by supplying sufficient toxoid for immunization of sixty children at the Rose Dispensary. Likewise the State Board of Health cooperated with the Greene County program, and the program in Perry County, where several hundred children of the rural schools have been immunized.

## THE EMPLOYMENT OF A FULL TIME EXECUTIVE SECRETARY FOR THE COUNTY MEDICAL SOCIETY

At the recent annual meeting of the Indiana State Medical Association, one of the recommendations adopted by the House of Delegates was that county medical societies, particularly the larger societies, should consider the employment of full time executive secretaries.

For some time the larger societies have recognized the fact that the secretary is burdened with increasing responsibilities and duties. Since 1936 successive councils of the Indianapolis Medical Society have given serious consideration to the matter, but in April, 1938, a motion was passed by the Indianapolis Medical Society Council asking for the appointment of a committee to investigate the feasibility of such an action. The committee, through the society's secretary, conducted an intensive investigation, and it is believed that the results of that study may be helpful to other county societies that are considering the advisability of employing a full time secretary.

Twenty-five counties throughout the United States (counties employing full time secretaries) were sent questionnaires. Eighteen replies were received, sixteen indicating that full time secretaries are now employed, and these sixteen were used in making the following summary:

Twelve of the societies employ lay secretaries; four employ physician secretaries.

Previous occupations of the secretaries included: former secretary of tuberculosis and non-official health agencies (2), assistant secretary to state society (1), accountants (2), newspaper men (4), physicians (4), salesman (1), and industrial agent (1). (One made no reply to the question.)

Salaries ranged from \$1,000 to \$12,000, with only one man for each of the amounts mentioned as extremes. Four received less than \$2,000 per year; seven were in the range from \$2,100 to \$3,600; four varied from \$4,250 to \$6,000. The general average is \$3,603.

Smaller societies indicated that additional personnel was limited to two persons, and larger societies employed from twelve to seventeen persons, with about half of this personnel on a part



time basis. The general average of salaries for additional personnel is \$3,843, and the annual overhead expenses for the societies averaged \$1,150.

#### DUTIES OF SECRETARIES

The duties of the secretaries varied. Some serve as secretaries of committees (14), as editors of society publications (14), solicitors of advertising for publications (8), managers of collection and credit service (4), and of telephone service (5), managers of indigent and low income groups (4), managers of postgraduate and other medical programs (9), managers of speakers' bureaus (10), and to prepare radio talks and news bulletins (10).

#### SOCIETY DUES

Annual membership dues vary. Cleveland has "junior" and "senior" dues of \$5 and \$25. Others range from \$12.50 to \$36 per year, with the average being approximately \$22.

Incomes from other sources included bulletins, accountancy, and investments.

The societies represented were Rochester (N. Y.), Philadelphia, Los Angeles, Paterson (N. J.), Milwaukee, Toledo, Kansas City, Des Moines, Cincinnati, Pittsburgh, Cleveland, Washington (D. C.), Wichita (Kans.), Omaha (Neb.), Mineola (N. Y.), and White Plains, (N. Y.).

#### ABSTRACT

##### NEUROLOGIC NOTE ON TRAFFIC LIGHTS

Lewis Mumford has pointed out that in the employing of machines we have too often forgotten their biologic effects in our constant search for mechanical perfection. He envisions a new period in technical history, the biotechnic era, when the machine will be restudied and redesigned on a physiologic basis—oriented toward the culture of life. Howard D. Fabing, Cincinnati (*Journal A. M. A.*, Sept. 24, 1938), examines the ubiquitous traffic light in the light of this criticism and, although its mechanical efficiency is unquestioned, it is found to be bad physiologically—bad for us who have to live with it. The adoption of another form of traffic signal, less exhausting to the nervous system, is desirable. From a physiologic point of view he suggests the one invented by Schubert: It is constructed as follows: A circular glass panel, illuminated from the rear, is divided into sectors, the upper green, the lower red and two small intermediate sectors at each side yellow. A hand similar to a clock's hand, revolves slowly around the circular panel in a clockwise direction. The driver may see at a glance how much green or red remains on the panel and by noting the speed of the revolving hand he may respond to the stimulus more rationally. Two stimuli now evolve into a flowing continuum of stimulation rather than a rapid succession of colliding antagonistic patterns. The signal itself, being more graphic, is more easily defined consciously and therefore becomes a more efficient physiologic stimulus. Traffic lights of this kind are to be seen in operation, though far too rarely (at the southern end of the Red Square in Moscow and in the Bahnhofstrasse in Zurich, Switzerland). Perhaps there are many others but at best there are far too few. The universal adoption of a traffic signal of this or similar type would undoubtedly bring a real measure of relief to the motoring public, for, as Pavlov states, "this conflict and this balancing are not easy for the nervous system."

## Deaths

Eber Leander Annis, M.D., of Laporte, died December 2, 1938, aged seventy-eight years. Dr. Annis graduated from Rush Medical College, University of Chicago, in 1881.

Edgar Franklin Magenheimer, M.D., of Evansville, died November twenty-seventh. Dr. Magenheimer was fifty-one years old. He had practiced in Evansville since 1911, after graduating from the Indiana University School of Medicine in 1910. He was a member of the Vanderburgh County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

Martin Luther Wagner, M.D., of Peru, died November thirtieth, aged sixty-one years. Dr. Wagner was a graduate of the Indiana Medical College, School of Medicine of Purdue University, Indianapolis, in 1907.

Nathan Powell Graham, M.D., of Indianapolis, died November twenty-seventh. Dr. Graham was sixty-two years old. He had practiced in Indianapolis for thirty years. Dr. Graham graduated from Northwestern University Medical School, Chicago, in 1899, and was a member of the Marion County Medical Society, the Indiana State Medical Association and a Fellow of the American Medical Association.

Chester B. Crumpacker, M.D., of South Bend, died November twenty-third, aged fifty-five years. Dr. Crumpacker graduated from Northwestern University Medical School, Chicago, in 1905, and specialized in internal medicine. He was a member of the St. Joseph County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

John C. Blossom, M.D., of Richmond, died November twenty-fourth, after a long illness. Dr. Blossom was sixty-six years old. He was a graduate of the Kentucky School of Medicine, Louisville, in 1900, and had practiced in Richmond for twenty-eight years.

Carl Huston Wright, M.D., of Yorktown, died November twenty-fourth, after a long illness. Dr. Wright was sixty years old. For many years he was a member of the Delaware-Blackford County Medical Society, the Indiana State Medical Association, and the American Medical Association. He graduated from the Medical College of Indiana, Indianapolis, in 1903.

Harry Sutphin Hatch, M.D., retired physician of Madison, died November twenty-ninth. Dr. Hatch was seventy-two years old. He graduated from Pulte Medical College, Cincinnati, in 1892.

Charles M. Beall, M.D., of Clarksburg, retired physician, died November sixteenth, aged eighty-four years. Dr. Beall had gained a reputation as a breeder of Percheron horses, the occupation to which he had turned after retirement from medical practice. He was a graduate of the Cincinnati College of Medicine and Surgery in 1881.

David T. Cardwell, Negro physician of Gary, died November eighteenth, aged fifty-eight years. Dr. Cardwell had served as a member of the board of health and as coroner's physician. He graduated from Howard University, College of Medicine, Washington, D. C., in 1905.

Ulysses G. Lipes, M.D., of Indianapolis, died November twenty-first, aged seventy-four years. Dr. Lipes graduated from the Fort Wayne College of Medicine in 1885.

Henry A. Nichols, M.D., of Orland, died November fourth, aged seventy-seven years. Dr. Nichols was a graduate of the Medical College of Indiana, Indianapolis, in 1891.

Joseph Eli Bird, M.D., of New Albany, died December eighth. Dr. Bird was sixty-eight years old. He graduated from the Hospital College of Medicine, Louisville, in 1897, and was a member of the Floyd County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association. He was a past president of his local society.

Maly E. Renner, M.D., of Lagro, died December twelfth as the result of injuries sustained in an automobile accident a few days earlier. Dr. Renner practiced in Urbana from 1889 to 1913 since when he has practiced in Lagro. He was an honorary member of the Wabash County Medical Society, and was a member of the Indiana State Medical Association and the American Medical Association. Dr. Renner was seventy-eight years old. He graduated from the University of Michigan Medical School, Ann Arbor, in 1881.

William Parker Best, M.D., of Indianapolis, died December twelfth, aged seventy-four years. He had practiced in Indianapolis for thirty-eight years. Dr. Best graduated from Eclectic Medical College, Cincinnati, in 1888.

## News Notes

Dr. P. H. Schoen of New Albany, is beginning his twenty-first year as secretary-treasurer of the Floyd County Medical Society.

Dr. Charles Holland of Bloomington has been appointed acting Indiana University physician to succeed his father, Dr. J. E. P. Holland, who died December fourth.

Dr. Robert C. Anderson, former medical director at Kenilworth Sanitarium, Kenilworth, Illinois, has been appointed assistant superintendent of the Muscatatuck Colony for the Feeble Minded at Butlerville. Dr. Anderson is a native of Attica, Indiana, and is a graduate of the Indiana University School of Medicine.

Women of the medical and legal professions in Indianapolis followed their annual custom of holding a joint meeting, November twenty-eighth. The meeting was sponsored by Mu Sigma Phi, medical sorority. Speakers included Miss Jessie Levy, Dr. Frances Brown, Miss Pearl Lee Vernon, and Dr. Jane Ketcham.

Miss Mary Seal and Dr. Jack McKittrick, both of Washington, Indiana, were married November twentieth.

Dr. and Mrs. George S. Row of Osgood entertained with a Christmas party, December twenty-first, for approximately 150 babies that Dr. Row had attended at birth, during the five years that he has practiced in Osgood.

Miss Maryanna Loidl of Anderson and Dr. Robert Armington of Anderson were married November tenth.

Dr. M. T. McEachern, associate director of the American College of Surgeons, has completed plans for the midwestern conference of the organization to be held in Indianapolis, March 22 to 24. Approximately one thousand surgeons from Indiana and surrounding states will attend the conference.

Miss Isabelle McMahan, of Alexandria, and Dr. Lawrence Shinaberry of Fort Wayne were married November thirtieth.



The Cincinnati Dermatological Society will hold its regular monthly meeting in Indianapolis, January eleventh, as guests of Dr. John Kelly and Dr. John Dalton. A clinical program has been arranged for the afternoon at the City Hospital, and will be followed by a dinner meeting in the evening. Dr. Harold N. Cole of Cleveland, Ohio, will be the guest speaker in the evening. Interested physicians are invited to attend, and may make arrangements to do so by communicating with Dr. Kelly or Dr. Dalton, 23 East Ohio Street, Indianapolis.

At the October meeting of the Central Association of Obstetricians and Gynecologists, Dr. G. W. Gustafson, of Indianapolis, was elected to a three-year term on the executive committee of the society.

Dr. John Dalton of Indianapolis has been awarded the certificate of the American Board of Dermatology and Syphilology.

Dr. Edmund L. Keeney, son of Dr. B. G. Keeney of Shelbyville, is practicing with Dr. Leslie Gay in Baltimore. Dr. Keeney recently presented a paper on "Slow Epinephrine" before the combined meeting of the Baltimore City Medical Society and the Medical Society of the District of Columbia in Washington, D.C. In addition to his practice, Dr. Keeney has a position as instructor at Johns Hopkins.

The United States Civil Service Commission announces open competitive examination for position of Associate Physiologist, applications for which position must be on file not later than January 10, 1939. Application blanks may be obtained from the secretary, Board of U. S. Civil Service Examiners at any first-class post office, or from the United States Civil Service Commission, Washington, D. C.

The United States Civil Service Commission announces open competitive examination for the positions of Biometrician, Associate Biometrician, and Assistant Biometrician for the Public Health Service. Applications must be on file with the U. S. Civil Service Commission not later than January 10, 1939. Application blanks may be obtained as mentioned in the preceding paragraph.

The International College of Surgeons, in connection with the United States Chapter of that body, will hold its Assembly in New York City at the Hotel Roosevelt, May 22, 23, and 24, 1939. General chairman of the assembly will be Dr. Edward Frankel, Jr., 217 East 17th St., New York City.

The American Medical Association is publishing a clip sheet known as the American Medical Association News. It appears each week and contains official announcements of the American Medical Association as well as abstracts of original articles in *Hygeia* and *The Journal of the A.M.A.* and other material useful as filler material for public health education.

Dr. and Mrs. Frank E. Wiedemann, of Terre Haute, will leave soon for New Orleans, Louisiana, where Dr. Wiedemann will do graduate work in Tulane University for several months.

#### SCIENTIFIC EXHIBIT AMERICAN MEDICAL ASSOCIATION

Application blanks are now available for space in the Scientific Exhibit at the St. Louis Session of the American Medical Association, May 15-19, 1939. Attention is called to the fact that the meeting is a month earlier than usual, and applications close January 5, 1939. Blanks will be sent on request to the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn St., Chicago, Ill.

The general oral, clinical and pathological examinations for all candidates, Part II examinations (Groups A and B), will be conducted by the entire Board, meeting in St. Louis, Missouri, May 15 and 16, 1939, prior to the annual meeting of the American Medical Association. Candidates for re-examination must request such re-examination by writing the Secretary's office before April 1, 1939. Candidates who are required to take re-examinations must do so before the expiration of three years from the date of first examination. Application for admission to Group A, May 1939, examinations must be on file in the secretary's office by March 15, 1939. Application blanks and information may be obtained from Dr. Paul Titus, secretary, 1015 Highland Building, Pittsburgh (6) Pennsylvania.

#### MISSISSIPPI VALLEY MEDICAL SOCIETY 1939 ESSAY AWARD

The Mississippi Valley Medical Society offers a cash prize of one hundred dollars, a gold medal, and a certificate of award for the best unpublished essay on a subject of interest and practical value to the general practitioner of medicine. Entrants must be members of the American Medical Association. The winner will be invited to present his contribution before the next annual meeting of the society at Burlington, Iowa, September 27 to 29, 1939. Contributions must not exceed 5,000 words and must be sent in not later than May 1, 1939. Further details may be secured from Harold Swan-

berg, M.D., Secretary, 209 W. C. U. Building, Quincy, Ill.

According to U. S. Public Health Service bulletins, the average case of pneumonia in New York City costs \$167.60. If this figure is representative of the costs for diagnosis and treatment of pneumonia, the annual bill for the disease in the United States amounts to more than \$75,000,000.

The American Board of Ophthalmology announces an important change in its method of examination of candidates for the Board's certificate. Examinations will be divided into two parts. Candidates whose applications are accepted will be required to pass a written examination which will be held simultaneously in various cities throughout the country approximately sixty days prior to the date of the oral examination. The oral examination will be held at the time and place of the meeting of the American Medical Association and of the American Academy of Ophthalmology and Otolaryngology and occasionally in connection with other important medical meetings. The next written examination will be conducted March fifteenth. Applications for permission to take the written examination must be filed with the secretary not later than February 15th. The secretary is Dr. John Green, 6830 Waterman Avenue, St. Louis, Missouri.

#### NORTH CENTRAL FORUM ON ALLERGY

The North Central Forum on Allergy will hold a meeting at the Commodore Perry Hotel, Toledo, Ohio, January fifteenth (Sunday). A social meeting will be held on the preceding evening, and the program will begin at ten o'clock Sunday morning. Six papers will be presented, each essayist being limited to ten minutes, and discussants limited to five minutes. Physicians interested in allergy are invited to attend. Details may be obtained by writing to Dr. Karl D. Figley, 316 Michigan Street, Toledo, Ohio.

Dr. James B. Murphy, chief of the Cancer Research Division of the Rockefeller Institute, New York, and Dr. Mont Rogers Reid, director of surgical service of the Cincinnati General Hospital, have been named as new members of the National Advisory Cancer Council for three-year terms. The appointments were announced by Surgeon General Thomas Parran. The new members succeed Dr. Francis Carter Wood, of Columbia University, and Dr. James Ewing, director of the Memorial Hospital, New York. Continuing members of the Cancer Council are President James B. Conant of Harvard University, Dr. Arthur H. Compton of the University of Chicago, Dr. C. C.

Little, managing director of the American Society for the Control of Cancer, and Dr. Ludvig Hektoen, of Chicago, who is serving as executive director of the National Advisory Cancer Council. The Cancer Council shares with the Surgeon General responsibility for the policies and activities of the National Cancer Institute Act with particular regard to grants-in-aid.

#### POSTGRADUATE COURSES IN OBSTETRICS BEING HELD AT INDIANA UNIVERSITY SCHOOL OF MEDICINE

The series of two-weeks postgraduate courses in obstetrics being conducted at Coleman Hospital, Indianapolis, through the combined cooperation of the Indiana State Medical Association, the Indiana University School of Medicine, and the Indiana State Board of Health, have continued since November 14. At the completion of each course, most of the students have written letters of comments on the work. An example of the appreciation of these men is shown in the following letter written by Doctor Claude B. Paynter, secretary of the Washington County Medical Society, who attended the first of the series of courses.

I want to express to you my appreciation for the opportunity of enjoying two weeks of intensive—and I might add, strenuous—work at the Indiana Medical Center.

It proved to be both interesting and educational, and gave an old-timer a splendid opportunity for comparison of teaching methods of thirty-five years ago, of actual practice, and the application of modern concepts in up-to-date institutional practice. In fundamentals, the same rigorous teaching prevails, and this is as it should be. To carry the technique of hospital training into the home—well, it just can't be done yet, without many modifications, and this includes all of the problems of social welfare as well as the ingenuity of the doctor to apply the modern concept of asepsis.

With a continuous educational program in the home, public paid and well trained county nurses, and conveniently located hospitals with properly equipped laboratories, much can be accomplished to improve maternity and child welfare.

I think this course is going to be the means of stimulating the medical profession to see the necessity for, and to provide encouragement to bring it about, of a progressive local policy for adequate institutional care.

I was particularly interested in the growing relationship of a modern laboratory to the actual practice of medicine, and I believe something should be done to make rapidly available laboratory findings for the physician in every county.

To say, in the light of actual practice I acquiesce in all I saw and heard, would be to acknowledge that some proven bedside practices were wrong. In the light of success, a discussion would be futile.

In Doctor Huber I am sure you have secured a splendid teacher and organizer. His plan for this postgraduate course shows he has a broad concept of what it is all about.

With best wishes, I beg to remain,

Respectfully,

CLAUDE B. PAYNTER, M.D.,

Secretary of Washington County Medical Society, Salem, Indiana.



## INDIANA UNIVERSITY NEWS NOTES

Gifts and bequests of nearly \$20,000 to the James Whitcomb Riley Memorial Association have been reported to the joint executive committee of the Riley Hospital for Crippled Children by James W. Carr, executive secretary of the association.

Included is \$16,000 from the estate of Mrs. Atta R. Linthicum of Evansville; approximately \$1,000 from the estate of Mrs. Emma Herpick, Indianapolis, and half of a \$3,500 bequest left jointly to the memorial association and the General Protestant Orphans Association by John G. Lehr, Indianapolis.

In addition the committee has been informed of an \$8,000 bequest from the estate of Ira Williams, Anderson, subject to the settlement of litigation brought to construe the will.

The joint executive committee has received formal notification of the gift of John W. Bradford of Morgan county of his \$75,000 home and 900 acres of land. The committee adopted a resolution expressing its appreciation of the gift and approved the retention of a landscape engineer and any other help needed to further plans for general use of the home and land. Mr. Bradford specified that the home is to be used as a convalescent unit of Riley Hospital or for some similar purpose. The gift was made to Riley Hospital and Indiana University.

Mr. Carr reported that Rotary clubs of Indiana have approved purchase with their funds of new equipment costing \$1,500 in the Rotary Convalescent unit. The committee also approved expenditure of \$1,100 from the Jesse Spaulding Landon linen fund for materials and equipment to be used by the Riley Cheer Guild.

Members of the committee are Hugh McK Landon, president; George A. Ball, Arthur R. Baxter, Arthur V. Brown, Dr. William Lowe Bryan, Dr. Carleton B. McCulloch, Samuel D. Miller, Val Nolan, Albert L. Rabb and P. C. Reilly.

Members of the senior class of the Indiana University School of Medicine were guests at a dinner-meeting held recently in the nurses' home of St. Vincent's Hospital, Indianapolis.

Principal speakers were Dr. J. Don Miller; Dr. W. D. Gatch, dean of the Indiana University School of Medicine; Dr. G. T. Paulison; Dr. Carl Habich, president of the St. Vincent's Staff Society, and Prof. A. J. Rawlinson, Indiana University medical school. Following the dinner, an inspection of the hospital was held.

Thirteen seniors who will be graduated in June from the Indiana University school of medicine have been appointed internes in the Methodist

Hospital, Indianapolis, for next year. They are as follows: George K. Hammersley, Frankfort; Jack Hull, Fowler; G. N. Lover, Worthington; Loren Martin and Marvin Davis, Greensburg; Maurice Mentendick, Richmond; William C. Stafford, Plainfield; John Warren, Winchester; Roderick Boling, Robert Scott, David Stone, Julius Travis and Wesley Ward, Indianapolis.

### BROADENING FIELDS IN CHILD PSYCHIATRY

During the past two years the opportunity for students of medicine to study in the field of child psychiatry has been broadened in Indiana. This has been accomplished by the cooperative efforts of Indiana University School of Medicine, Indiana State Medical Association, and Indiana State Board of Health, in providing a well trained child psychiatrist to teach clinical psychiatry at Indiana University School of Medicine and Riley Hospital. This work has been under the direction of Doctor Exie E. Welsch, child psychiatrist of the Bureau of Maternal and Child-Health of the Indiana State Board of Health.

Preliminary arrangements have been completed for further extending this teaching to under-graduate students of medicine throughout the curriculum. During the coming year, plans have been drawn up with Dean Myers that an introductory course in psychobiology is to be given at Bloomington by Doctor Welsch. This is to be the beginning of a continuous course throughout the student's four-year course, which will include courses in psychobiology and psycho-pathology, which will afford a solid foundation for the senior year when courses in clinical psychiatry are offered.

## BOOKS

### Books Received:

**UROLOGY.** By Daniel N. Eisendrath, M.D., consulting urologist to the American Hospital, Paris, France; and Harry C. Rolnick, M.D., attending urologist, Michael Reese, Mt. Sinai, and Cook County Hospitals, Chicago. New fourth edition. 750 black and white illustrations, and 12 in color. Entirely revised and reset. 1,061 pages. Cloth. Price \$10.00. Philadelphia, Montreal and London. J. B. Lippincott Company, 1938.

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**MEDICINE IN MODERN SOCIETY.** By David Riesman, M.D. 215 pages. Cloth. Price \$2.50. Princeton University Press, Princeton, N.J., 1938.

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### Reviews:

**THE RELATION BETWEEN INJURY AND DISEASE.** By Jewett V. Reed, M.D., F.A.C.S., Assistant Professor of Surgery, Indiana University School of Medicine; consultant in neurosurgery, Indianapolis City Hospital; Charles P. Emerson, M.D., D.Sc., past professor of medicine and Dean, Research Professor of Medicine, Indiana University School of Medicine; and in collaboration, E. B. Mumford, M.D., F.A.C.S., past assistant professor of Orthopedic Surgery, Indiana

University School of Medicine, and consultant, U.S. Veterans Bureau Hospital. Fabrikoid binding, illustrated. Price \$7.50. Bobbs-Merrill Company, Indianapolis, 1938.

Unfortunately, medical schools in general place too little emphasis upon the subject of traumatic surgery except in its relationship to orthopedics. This can be more truthfully said of the relationship of trauma and disease and until recently no adequate text on this subject has been available. The correlation of the two, especially in medico-legal matters, has required considerable search through the literature for supportive evidence.

Drs. Reed, Emerson and Mumford have presented an important book, prefacing their labors with the hope that it will prove of value to "officials of insurance companies . . . lawyers . . . and physicians and surgeons." That they should attain their aspiration insofar as the medical profession is concerned should be devoutly seconded since it is an excellent working manual for the physician called upon to voice his opinion before courts of law. However, it is to be doubted that many insurance officials or lawyers will find in its pages sources of reference, principally because with few exceptions it is a technical treatise.

The book is attractively bound, and its 536 pages contain a wealth of material for the man interested in traumatic medicine and surgery. A praiseworthy attempt has been made to give emphasis to those subjects which are of most importance and most frequently encountered. Fourteen chapters carry one through the fundamental anatomical structures, and the sub-headings and titles are nicely indicated. The printing is of excellent character and type, and this with the interesting text arrangement make the volume easy to read and digest. The style may at times be somewhat stilted, but at least it is direct and to the point.

Particular reference must be made to the splendid index arrangement. This affords easy and ready access to any subject in the book, and without the necessity of wading through numerous sub-headings. It is direct, easily used, and a pleasure to find in a text of this character.

The authors are to be commended on a splendid contribution, and the publishers on an excellent presentation of a subject which merits the thoughtful study of the medical profession.

\* \* \*

**A TEXTBOOK OF GYNECOLOGY.** By Arthur Hale Curtis, M.D. Third edition, reset. Pp. 603, with 318 illustrations and 22 plates in color. Cloth. Price \$7.50. W. B. Saunders Company, 1938.

When one buys a medical book the author's name has much to do with the bargain. It often is the only reason for the buying of the book. It is naturally hoped that the opinions of such an author will be foremost. Dr. Curtis is looked to as an outstanding leader in gynecology and in his *Textbook of Gynecology*, which is now in the third edition, he gives in a clear and easily read manner what he believes to be good conservative or the best gynecological practice.

This edition has been enlarged by eight new chapters dealing with anatomy and physiology from the gynecological viewpoint. This addition is based on the actual clinical experience of Dr. Curtis and upon anatomical dissections carried out under his supervision for this specific purpose. Four chapters give a detailed description of the endocrines. The literature is summarized sufficiently to round out contemporary opinion and the bibliography at the end of each chapter gives the references with the subjects of papers in full which is a definite help when one is trying to decide what further he wishes to read about a subject. The original subject matter has been entirely rewritten and brought up to the minute.

The complete description of the Wertheim radical abdominal hysterectomy for carcinoma of the cervix may seem unusual in an American textbook since radium has come to be the almost universal method of treatment here. However, British and German surgeons still believe it has a place in the treatment of this condition. The treatment by radiation for this condition is given completely by Dr. Curtis.

There are 318 illustrations chiefly by Tom Jones. There are 22 plates in color. The many fine anatomical drawings are by Lucille Cassell. The illustrations of the sequence of detail of operations is especially clear.

Any one interested in gynecology will make a mistake if he does not read this book.

## Societies — Institutions

### WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

The Indiana legislature convenes in January. Edmund Burke said, "When bad men combine, the good must associate." At the close of the session, Mrs. Verne K. Harvey, state legislative chairman, will give a report of the medical legislation.

Topics of the months for 1939 were published on page 692 of the December JOURNAL. Auxiliaries are advised to have their local doctors address them on these subjects as they relate to the public.

Thirty years ago, a doctors' wife kept the home fires burning and her lips sealed. Changes in the social and governmental aspects of life have made it necessary for doctors' wives to be informed. Women's clubs expect us to be able to tell them just what all this news concerning socialized medicine and the Indiana Plan is about. We must be intelligently informed or admit that we are just plain dumb. Indiana medical societies that are alert will recognize this new phase of medical education and properly instruct every doctor's wife in the state. Diagnosis and doses? No! Government in medicine? Yes! "New occasions teach new duties."

Mrs. George R. Dillinger, state chairman of Public Relations, writes:

Our work in public relations is more important now than ever. In the National Auxiliary we have a capable chairman of the Public Relations Committee, Mrs. Henry Raile, Salt Lake City. She has sent out a plan which she explains as follows: Robert Louis Stevenson wrote of the physician, "He is the flower of our civilization and when that state of man is done with, only to be marveled at in history, he will be thought to have shared but little in the defects of the period and to have most notably exhibited the virtues of the race. Generosity he has, such as is possible only to those who practice an art and never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and what are more important, Herculean cheerfulness and courage."

These are the men whose lives we share. Our responsibilities are in proportion to our honor and before we can fittingly represent them or successfully cooperate with them we must of necessity harmonize our ideals and correlate our standards with theirs. Are we generous, discreet, tactful, cheerful, courageous?

On the premise that physicians, by force of medical oath and ethics must deport themselves in a manner distinctive to themselves, set apart, in many respects, from the average breadwinner, just so must the doctor's



wife deport herself in a manner peculiar to her position. The ideal wife for a medical man is not born to the profession and the responsibilities with which marriage mantles her, but usually makes her own success by serious consideration and painstaking practice of the graces she determines to possess.

Woman's instinct is not to be belittled, but more than instinct is necessary to offset her husband's lengthy and meticulously finished training. During long years of training he has developed a poised, perfectly integrated, scientific personality. It is little enough for any physician to expect his wife and the wives of other medical men to "train for their jobs."

Consequently before we can outline public relations or *courtesy contacts* with others, we must turn eyes upon ourselves and see that we are fit emissaries for the profession. The first step in public relations for 1939 is logically "Self-Stocktaking."

Once our shortages are noted, once our excesses are recognized, we can begin to do something about adjustments. When essential personal adjustments are made and our homes set in order, we may look to our neighbors.

"What you can do, or dream you can, begin it.

Boldness has genius, power and magic in it."

—Goethe.

Mrs. C. E. Ragan, chairman of *Hygeia*, writes:

*Hygeia*, The Health Magazine, is published by the American Medical Association. It brings reliable news in the field of health, presenting interesting articles by famous physicians, teachers, child psychologists, and nurses. Are we as members of the different County Medical Auxiliaries doing our part in helping spread the gospel of *Hygeia* by securing new subscribers to this important and valuable messenger of health tidings?

Some one has wisely said: "The vocation of every man and woman is to serve other people." Surely there is no greater field in which we, as Auxiliary members, can work to serve the public than to help them learn of the health program as found in *Hygeia*. It is the only authentic health periodical available in this country.

It is a magazine filled from cover to cover with interesting, educational material for the adult, the adolescent, and the child. It tells the homemaker how to keep physically fit and mentally alert. It tells of the peace-time work of the Red Cross. It tells about Acne, the plague of youth. It throws a scientific searchlight on the ignorance, sex superstitions, prejudices and fears, which have long surrounded this subject. It shows the need and means for obtaining a fair deal for our school children, as well as adults, with subnormal sight and hearing. There was an article on "The Vitamin Follies." One professor writes of the dangers of the Athlete's bugbear, "The Charley-horse." There was another article on children being kind to animals. These are only a few examples of the many up-to-date subjects published from month to month in this educational magazine.

It is the best medium for reaching both the teachers and the pupils of our schools throughout the nation. It keeps them informed of the progress of medical science, and the latest ideas on the prevention of diseases. The American Medical Association urges us to promote the distribution of *Hygeia* through parent-teacher associations, boards of education, and all similar bodies interested in education. Let us strive to have *Hygeia* in the library of every public school in our State. Tennessee Auxiliary secured State Legislation for an appropriation which enabled them to place eight month subscriptions in every elementary school in the state. May this be a challenge to our Auxiliary ladies. The National Chairman of *Hygeia* insists,—"This is the most important year the Auxiliary has ever faced. We should think and work toward building up our security for the future. Our opportunity is through *Hygeia*." May every doctor's wife be a reader of *Hygeia*, determined to further its

distribution in all public schools, libraries, and public reading places throughout our State. To read one issue is to be convinced of its intrinsic value.

"If you have knowledge, let others light their candles by it."—Thomas Fuller.

St. Joseph County met for a luncheon meeting November nineteenth in the home of Mrs. M. D. Wygant, Mishawaka. Fifty members were present. Mrs. W. B. Christophel gave an account of her recent trip to Palestine. Subscriptions to *Hygeia* were renewed for thirty-six of the public and parochial schools. A five dollar T. B. bond was purchased. Mrs. N. S. Lindquist, president, presided.

Vanderburgh County held a luncheon-bridge and the sixty dollars cleared was given for this year's project—buying books for the Boehne T. B. Hospital. Dr. John Hare, superintendent of the Evansville State Hospital, was speaker for the second meeting. This auxiliary voted to have the "Hoosier News Letter" sent to each member. Mrs. Joe H. McCool is president.

Vigo County Auxiliary staged a style show and philanthropic bridge party November seventh in the junior ballroom of the Terre Haute House. Models were members of the Auxiliary. The money realized will be used for a student loan fund. The Auxiliary has established occupational therapy rooms at St. Anthony and Union Hospitals.

Marion County presented the "Medical Widows' Follies" to a crowded house. This was an unusual event. Good show! For information, write Mrs. R. D. Howell, Indianapolis.

The December meeting was addressed by Dr. Daniel Bowers. A film, "Typing Pneumonia" was presented.

The Hoosier News Letter will be issued May first, preceding the A. M. A. meeting at St. Louis, and October first preceding the state meeting at Fort Wayne. Each Auxiliary desiring these letters must order them by April first. Cost will be five cents for two issues (mailing cost only). Send money to State Treasurer, Mrs. C. L. Bock, R. R. No. 5, Muncie, Indiana.

Mrs. W. F. HUGHES,

Press and Publicity Chairman.

## COUNTY SOCIETIES

### COUNTY MEDICAL SOCIETY OFFICERS FOR 1939

The following counties have reported the elections of officers for 1939:

#### BENTON COUNTY:

President, W. H. Altier, Fowler  
Vice-president, J. E. Horton, Earl Park  
Secretary-treasurer, George W. Marsh, Otterbein

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#### BOONE COUNTY:

President, E. A. Rainey, Lebanon  
Vice-president, Frank Riley, Jamestown  
Secretary-treasurer, C. G. Kern, Lebanon

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#### CARROLL COUNTY:

President, Charles C. Crampton, Delphi  
Vice-president, C. E. Carney, Delphi  
Secretary-treasurer, Charles Wise, Camden

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#### DEARBORN-OHIO COUNTY:

President, C. N. Manley, Rising Sun  
Vice-president, F. A. Streck, Lawrenceburg  
Secretary-treasurer, J. C. Elliott, Guilford

**DELAWARE-BLACKFORD COUNTY:**

President, Joseph C. Silvers, Muncie  
 Vice-president, Joseph H. Clevenger, Muncie  
 Secretary-treasurer, Donald A. Covalt, Muncie

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**ELKHART COUNTY:**

President, H. P. Bowser, Goshen  
 Vice-president, C. L. Amick, Wakarusa  
 Secretary-treasurer, Sam T. Miller, Elkhart

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**FLOYD COUNTY:**

President, William W. Weaver, New Albany  
 Vice-president, Fred Bierley, Elizabeth  
 Secretary-treasurer, P. H. Schoen, New Albany

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**FORT WAYNE (ALLEN COUNTY):**

President, H. V. Blosser, Fort Wayne  
 Vice-president, L. W. Elston, Fort Wayne  
 Secretary, R. L. Hane, Fort Wayne  
 Treasurer, E. L. Cartwright, Fort Wayne

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**FOUNTAIN-WARREN COUNTY:**

President, Lee J. Maris, Attica  
 Vice-president, L. R. Stephens, Covington  
 Secretary-treasurer, A. L. Spinning, Covington

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**FULTON COUNTY:**

President, K. K. Kraning, Kewanna  
 Vice-president, D. K. Stinson, Rochester  
 Secretary-treasurer, A. E. Stinson, Rochester

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**GRANT COUNTY:**

President, W. H. Braunlin, Marion  
 Vice-president, Robert Braunlin, Marion  
 Secretary-treasurer, R. E. LeMaster, Marion

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**GREENE COUNTY:**

President, Frank A. Bailey, Linton  
 President-elect (1940), George C. Porter, Linton  
 Vice-president, W. F. Craft, Linton  
 Secretary-treasurer, George E. Moses, Worthington

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**HAMILTON COUNTY:**

President, S. W. Hooke, Noblesville  
 Vice-president, Frank Rodenbeck, Arcadia  
 Secretary-treasurer, H. D. Hill, Noblesville

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**HUNTINGTON COUNTY:**

President, A. M. Hasewinkle, Markle  
 Vice-president, M. G. Erehart, Huntington  
 Secretary-treasurer, Grover M. Nie, Huntington

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**INDIANAPOLIS (MARION COUNTY) SOCIETY:**

President, Herman Morgan, Indianapolis  
 President-elect, Ben B. Moore, Indianapolis  
 Vice-president, Joseph L. Conley, Indianapolis  
 Secretary-treasurer, William M. Dugan, Indianapolis

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**JAY COUNTY:**

President, W. D. Schwartz, Portland  
 Vice-president, H. J. Hiestand, Pennville  
 Secretary-treasurer, B. M. Taylor, Portland

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**JENNINGS COUNTY:**

President, John H. Green, North Vernon  
 Vice-president, W. L. Stemm, North Vernon  
 Secretary-treasurer, D. L. McAuliffe, North Vernon

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**KNOX COUNTY:**

President, R. M. Anderson, Vincennes  
 Vice-president, Paul B. Arbogast, Vincennes  
 Secretary-treasurer, J. F. Reilly, Vincennes

**KOSCIUSKO COUNTY:**

President, O. H. Richer, Warsaw  
 Vice-president, Fred O. Clark, Syracuse  
 Secretary-treasurer, H. F. Steele, Claypool

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**MADISON COUNTY:**

President, C. P. McLaughlin, Pendleton  
 Vice-president, J. C. Drake, Anderson  
 Secretary-treasurer, W. L. Sharp, Anderson

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**MARSHALL COUNTY:**

President, F. G. Perry, Plymouth  
 Vice-president, P. R. Irey, Plymouth  
 Secretary-treasurer, L. W. Vore, Plymouth

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**NOBLE COUNTY:**

President, A. J. Rarick, Cromwell  
 Vice-president, K. D. Sneary, Avilla  
 Secretary-treasurer, W. F. Carver, Albion

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**PULASKI COUNTY:**

President, C. L. Linton, Medaryville  
 Secretary-treasurer, T. E. Carneal, Winamac

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**RANDOLPH COUNTY:**

President, G. H. Davis, Union City  
 Vice-president, I. E. Brenner, Winchester  
 Secretary-treasurer, A. M. Brenner, Winchester

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**SHELBY COUNTY:**

President, S. B. Coulson, Waldron  
 Vice-president, C. F. Inlow, Shelbyville  
 Secretary-treasurer, J. A. Davis, Flat Rock

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**ST. JOSEPH COUNTY:**

President, D. A. Bickel, South Bend  
 Vice-president, Carl Langenbahn, South Bend  
 Secretary-treasurer, J. V. Cassady, South Bend  
 Assistant secretary, C. M. Sennett, South Bend

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**STARKE COUNTY:**

President, Albert Fisher, North Judson  
 Vice-president, J. L. DeNaut, Hamlet  
 Secretary-treasurer, J. F. DeNaut, Knox

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**SULLIVAN COUNTY:**

President, M. H. Bedwell, Sullivan  
 Vice-president, I. H. Scott, Sullivan  
 Secretary-treasurer, J. B. Maple, Sullivan

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**SWITZERLAND COUNTY:**

President, Robert M. Copeland, Vevay  
 Secretary-treasurer, R. M. Copeland, Vevay

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**TIPPECANOE COUNTY:**

President, R. A. Flack, Lafayette  
 Vice-president, C. H. Rommel, Lafayette  
 Secretary, J. C. Burkle, Lafayette  
 Treasurer, Charles Hupe, Lafayette

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**VANDEBURGH COUNTY:**

President, Pierce MacKenzie, Evansville  
 Vice-president, Henry Faul, Evansville  
 Secretary-treasurer, Philip E. Yunker, Evansville

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**WABASH COUNTY:**

President, L. E. Jewett, Wabash  
 Vice-president, Z. M. Beaman, North Manchester  
 Secretary-treasurer, F. M. Whisler, Wabash



**VIGO COUNTY:**

President, O. T. Allen, Terre Haute  
 Vice-president, J. F. Spigler, Terre Haute  
 Secretary-treasurer, A. M. Mitchell, Terre Haute

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**WASHINGTON COUNTY:**

President, Donald Colglazier, Salem  
 Secretary-treasurer, Claude B. Paynter, Salem

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**WAYNE-UNION COUNTY:**

President, Curtis R. Hoffman, Richmond  
 Vice-president, L. T. Cox, Fountain City  
 Secretary-treasurer, Frank Coble, Richmond

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**WHITLEY COUNTY:**

President, Ben Pence, Columbia City  
 Vice-president, L. W. Tennant, Larwill  
 Secretary-treasurer, O. F. Lehmberg, Columbia City

**LOCAL SOCIETY REPORTS**

**ADAMS COUNTY MEDICAL SOCIETY** held a meeting at the Elks Home in Decatur, November twenty-fifth. Dr. C. C. Rayl presented a report on the International Post-graduate Assembly. Attendance numbered six.

\* \* \*

**BARTHOLOMEW COUNTY MEDICAL SOCIETY** members met in Columbus, November eleventh, with twelve members in attendance. The meeting was devoted to a study of a plan for care of the indigent sick.

\* \* \*

**BOONE COUNTY MEDICAL SOCIETY** held a meeting at Lebanon, November fifteenth. Dr. P. E. McCown, of Indianapolis, was guest speaker.

At this meeting it was reported that tuberculin skin testing of all high school students in Boone County was to be started November twenty-eighth in conjunction with the tuberculosis association.

At the December thirteenth meeting of the Boone County Medical Society, officers for 1939 were elected. A report upon the tuberculosis skin tests in the local high school showed that 34 out of 349 students gave positive reactions, or 9.8%; of the teachers, 11 of 31, or 35.41% gave positive reactions; one active case of tuberculosis was found in a girl student.

\* \* \*

**DAVISS-MARTIN COUNTY MEDICAL SOCIETY** members met in the county hospital at Washington, November twenty-ninth. Dr. Roy Smiley, of Washington, talked on "Recent Developments in Dentistry." Twelve members were present.

\* \* \*

**DELAWARE-BLACKFORD MEDICAL SOCIETY** members heard Dr. M. A. Auston, of Anderson, speak at the dinner meeting held in Muncie, at the Hotel Roberts, November fifteenth. Forty members were present. Dr. M. A. Schulhof read a paper on "Renal Tuberculosis," and a talk on first aid and life saving was made by John Herndon of Evansville, field representative of the American Red Cross.

Members of the society were enthusiastic concerning the ward rounds instituted November thirteenth at Ball Memorial Hospital, and it was agreed that the ward rounds would be held regularly at 9:30 o'clock on Sunday mornings.

\* \* \*

**ELKHART COUNTY MEDICAL SOCIETY** held a meeting December eighth at Elkhart. Dr. Charles E. Boys, of Kalamazoo, Michigan, presented "Color Pictures of Hawaii." Attendance numbered fifty-four. Officers were elected at this meeting.

\* \* \*

**FAYETTE-FRANKLIN COUNTY MEDICAL SOCIETY** members invited guests in surrounding counties to attend a meeting December thirteenth, at Connersville. Dr. Samuel Kennedy, of Shelbyville, and Raymond S. Springer, Tenth

District Congressman-elect, were principal speakers. Dr. Kennedy's subject was "Socialized Medicine," and a round-table discussion followed his address.

\* \* \*

**FLOYD COUNTY MEDICAL SOCIETY** held its annual dinner meeting in New Albany, December ninth, when officers for 1939 were elected. Medical Society Auxiliary members were guests at the meeting. A plan was adopted for prevention of diphtheria and smallpox in the county, through immunization clinics which will be operated during the month of January. The Third District Health Department of the State Board of Health will cooperate in sponsoring this project.

\* \* \*

**FORT WAYNE (ALLEN COUNTY) MEDICAL SOCIETY** entertained with its annual Christmas dinner party December twentieth at the Chamber of Commerce Building. Dusty Miller, of Wilmington, Ohio, was guest speaker.

\* \* \*

**FORT WAYNE (ALLEN COUNTY) MEDICAL SOCIETY** members held a meeting in the Fort Chamber of Commerce Building, November twenty-second, with an attendance of seventy-five. Dr. N. L. Salom presented a paper on "Anorexia Nervosa." A life membership in the Fort Wayne Medical Society was voted to Dr. L. L. Culp of Minneapolis, Minnesota.

At the December sixth meeting, Dr. E. V. Allen, of the Mayo Clinic, Rochester, Minnesota, talked on "Hypertension." Attendance numbered eighty.

\* \* \*

**FOUNTAIN-WARREN COUNTY MEDICAL SOCIETY** held a meeting at Attica, at the home of Dr. Burlington, December first. Guest speaker was Dr. H. H. Wheeler, of Indianapolis, whose subject was "Gastro-Intestinal Disease." Attendance numbered twenty. Officers were elected for 1939.

\* \* \*

**GIBSON COUNTY MEDICAL SOCIETY** held a meeting at the Methodist Hospital in Princeton, December twelfth. Dr. M. S. Durkee, of Evansville, talked on "Serum Treatment of Pneumonia." His talk was illustrated with moving pictures. Attendance numbered twenty-four.

\* \* \*

**GRANT COUNTY MEDICAL SOCIETY** held a meeting at the Spencer Hotel in Marion, November twenty-ninth. Motion pictures on "Traumatic Injuries of the Extremities" were shown for the twenty-five attendants. Officers for 1939 were elected.

\* \* \*

**GREENE COUNTY MEDICAL SOCIETY** members met at Linton, December fifteenth where they were entertained at the home of Dr. C. C. Hamilton. Officers were elected for 1939 and programs for 1939 were arranged.

\* \* \*

**HAMILTON COUNTY MEDICAL SOCIETY** members held their annual homecoming meeting at the hospital in Noblesville, December thirteenth. Officers for 1939 were elected.

\* \* \*

**HANCOCK COUNTY MEDICAL SOCIETY** members were entertained by Dr. and Mrs. Charles Titus, of Wilkinson, at the Columbia Club in Indianapolis, November seventeenth. Dr. J. O. Ritchie, of Indianapolis, and Dr. Gerald F. Kempf, of Indianapolis, were speakers, their subjects being "Thyroid Conditions in Older Age Groups" and "Sulfanilamide, and Other Important New Drugs."

\* \* \*

**HUNTINGTON COUNTY MEDICAL SOCIETY** members held their annual dinner meeting at the Hotel Lafontaine in Huntington, December sixth, when officers for 1939 were chosen. Guest speaker at the meeting was Dr. A. N. Ferguson, of Fort Wayne, whose subject was "A review of Recent Advances in Medicine."

**JASPER-NEWTON COUNTY MEDICAL SOCIETY** held a meeting in Rensselaer, December first, with Dr. R. H. Ruhmkorff, of Goodland, as host. Speaker was Dr. Richard N. Washburn, of Rensselaer, whose subject was "Functional Vomiting." Attendance numbered fourteen. Officers were elected for 1939.

\* \* \*

**JOHNSON COUNTY MEDICAL SOCIETY** members met at the Willard Hotel in Franklin, November twenty-fifth, to hear Dr. Russell S. Henry, of Indianapolis, talk on "Tuberculosis."

\* \* \*

**KOSCIUSKO COUNTY MEDICAL SOCIETY** held a meeting in Warsaw, December thirteenth, for election of officers and general business. Attendance numbered eleven.

\* \* \*

**KNOX COUNTY MEDICAL SOCIETY** members held a meeting at the Jewel Cafe in Vincennes, December thirteenth. Dr. Isidor Raphael, of Evansville, was the guest speaker; his subject was "Present Trends in Infant Feeding." Officers were elected for 1939.

\* \* \*

**LAKE COUNTY MEDICAL SOCIETY** met at Phil Smidt's, at Roby, December eighth, for the annual stag party. Al Wynkoop, city editor of the *Lebanon Reporter*, was the guest speaker.

\* \* \*

**MADISON COUNTY MEDICAL SOCIETY** held a meeting at the Anderson Country Club, December nineteenth, when Dr. Paul A. O'Leary, of the Mayo Clinic, was guest speaker. His subject was "Latent and Wassermann Fast Syphilis." The meeting was the first combined session of the Madison County Medical Society and the Madison County Dental Society. Dentists have been made associate members of the medical society.

\* \* \*

**MIAMI COUNTY MEDICAL SOCIETY** members met in Peru at the Miami County Hospital November twenty-fifth. Dr. E. B. Jewell of Logansport, presented a paper on "X-ray Treatment and Diagnosis."

\* \* \*

**MUNCIE ACADEMY OF MEDICINE** held a meeting at the Hotel Roberts, November twenty-ninth, when Dr. Walter C. Alvarez, of the Mayo Clinic, talked on "Hints in the Handling of the Nervous Patient." Nearly two hundred members and guests were present.

\* \* \*

**MONROE COUNTY MEDICAL SOCIETY** members met in the Graham Hotel, Bloomington, November twenty-third. Dr. P. T. Holland spoke on "Spinal Anesthesia." Attendance numbered eighteen.

\* \* \*

**MONTGOMERY COUNTY MEDICAL SOCIETY** met at Culver Hospital, Crawfordsville, November seventeenth. Dr. James Hawk, of Indianapolis, presented a paper on "Episiotomy and Repair." Attendance numbered twenty-four.

\* \* \*

**NOBLE COUNTY MEDICAL SOCIETY** held its annual meeting December thirteenth in Albion. Albion members were hosts for the society. Two scientific moving pictures formed the program. One was "Safe Home Delivery" by Dr. R. A. Durfee of the University of Vermont, and the other was "Treatment of Asphyxia Neonatorum" by Dr. J. B. DeLee of Chicago.

\* \* \*

**NORTHEASTERN INDIANA ACADEMY OF MEDICINE** met at the Kendall Hotel, Kendallville, December twenty-second, for a dinner meeting. Dr. Clayton G. Weigand of Indianapolis was the principal speaker, his subject being "Vitamins."

\* \* \*

**PARKE-VERMILLION COUNTY MEDICAL SOCIETY** members met at the Indiana State Sanatorium at Rockville, November sixteenth, with twelve members present. Case reports formed the program.

**PORTER COUNTY MEDICAL SOCIETY** held a meeting at Valparaiso, November twenty-ninth. Mr. J. D. O'Meara, of Fort Wayne, talked on "The Relation Between The Patient and the Physician." Fourteen physicians and six dentists attended.

\* \* \*

**RANDOLPH COUNTY MEDICAL SOCIETY** held a meeting December twelfth at Winchester, for election of officers. Dr. M. A. Austin, of Anderson, was principal speaker, his subject being "Medical Legislation."

\* \* \*

**SHELBY COUNTY MEDICAL SOCIETY** held a meeting at the Major Hospital in Shelbyville, December seventh, with sixteen members present. Dr. M. A. Austin, of Anderson, talked on "Trends in the Practice of Medicine."

\* \* \*

**ST. JOSEPH COUNTY MEDICAL SOCIETY** members met at the Columbia Club in South Bend, December seventh, for election of officers and committee reports.

\* \* \*

**TIPPECANOE COUNTY MEDICAL SOCIETY** members held a meeting at the Elks Club in Lafayette, December thirteenth, with sixty in attendance. This was a business and social meeting. Officers for 1939 were elected and the 1939 program was presented.

\* \* \*

**VANDERBURGH COUNTY MEDICAL SOCIETY** members met at the Vendome Hotel in Evansville, December thirteenth, for election of officers and business meeting. Attendance numbered fifty-four.

\* \* \*

#### FIFTH DISTRICT MEDICAL SOCIETY

The fifth District Medical Society held a meeting December first, at the Davis Hotel in Brazil. Members of the Clay County Medical Society were hosts for the meeting.

Officers were elected as follows:

President, Dr. H. H. Ward, Coalmont  
Vice-president, Dr. J. M. Palm, Brazil.  
Secretary, Dr. J. V. Richart, Terre Haute.

The speaker for the evening was Dr. E. N. Kime, of Indianapolis, whose subject was "Physical Therapy Measures in General Medical Conditions, Cutaneous Cancer and Precancer." Dr. Don D. Bowers, of Indianapolis, talked on "Office Management of Certain Infections and Neoplastic Gynecological Lesions."

The next meeting of the society will be held in May, 1939.

J. V. RICHART, M.D., *Secretary*

#### INDIANA STATE BOARD OF HEALTH BUREAU OF COMMUNICABLE DISEASES

##### Monthly Report, November, 1938

	Nov. 1938	Oct. 1938	Sept. 1938	Nov. 1937	Nov. 1936
Diseases					
Tuberculosis	137	167	87	137	113
Chickenpox	275	82	11	233	413
Measles	37	33	10	97	25
Scarlet Fever	495	496	143	579	436
Smallpox	44	29	14	73	7
Typhoid Fever	14	27	42	20	5
Whooping Cough	48	107	35	109	82
Diphtheria	98	165	39	132	121
Influenza	39	62	38	102	44
Pneumonia	60	78	46	71	69
Mumps	104	29	13	16	48
Meningitis	4	4	4	6	6
Malaria	1	23	47	0	0
Undulant Fever	8	3	3	2	1
Tularemia	8	0	0	4	0



## ABSTRACTS

### ADVOCATE FREE SERUM FOR NEEDY

The efficacy of anti-pneumococcus serum is so clear that it should be supplied free by state and city boards of health for those who cannot afford it, as is the case in the state of New York, Russell L. Cecil, M.D., and Edgar A. Lawrence, M.D., New York, state in *The Journal of the American Medical Association* for Nov. 19.

The results of serum therapy, the mortality and incidence of the various types of pneumonia as they occurred in 911 private patients treated at home, in the private pavilions of hospitals or in consultation in private practice are discussed by the authors. The review shows that the social stratum of the patient has little to do with the probable recovery rate, which depends not so much on the economic status of the person as on his age, on the type of pneumonia, and last but not most important of all, on the early use of serum.

The death rate for pneumonia appears to be lowest among patients who receive treatment at home.

However, it should not be inferred that patients receive better treatment at home than they do in the private pavilions of hospitals nor that transportation in an ambulance to the hospital is a detriment to the patient's chance of recovery. In deciding whether a pneumonia patient should be treated at home or be transferred to a convenient hospital several factors have to be considered:

1. Has the patient a comfortable home with proper facilities for handling the sick?
2. Does the patient live in town and at a convenient distance from the doctor's office or does he live in the country where he is inaccessible to emergency care?
3. Is the hospital under consideration provided with a medical house officer who is capable of handling medical emergencies such as vasomotor collapse, cyanosis or pulmonary edema?

The obvious advantages in having a pneumonia patient under hospital care are that the following are immediately available: sputum and blood cultures, x-ray examinations, oxygen therapy, serum treatment and, finally, if a surgical emergency arises treatment can be initiated promptly.

There is a high incidence of (20.2 per cent in the patients from the private pavilions of hospitals and 23.1 per cent in patients seen in consultation) and death rate from type III pneumonia in private patients. Type III pneumonia, by reason of its prevalence and fatality rate of almost 60 per cent, has come to be one of the most serious problems that the practitioner has to face. It is made doubly serious by the fact that type III serum fails to control the infection. Type I pneumonia occurred in 15.6 and 24.7 per cent and type II in 6.9 and 9.7 per cent, respectively, in the pavilion and consultation series of patients.

Pneumonia in private practice is not so mild a disease as it has often been considered to be. Certainly in New York private hospital pavilions the fatality rate is surprisingly high—no doubt definitely higher than the rate for small towns and rural districts.

### THE PRESENT STATUS OF THE SERUM THERAPY OF LOBAR PNEUMONIA

M. A. Blankenhorn, Cincinnati (*Journal A. M. A.*, Oct. 1, 1938), states that complete typing of all cases, through the entire thirty-two types, is the keystone of serum treatment and may provide the necessary information leading to the prevention of pneumonia. In parts of the United States in which typing has been practiced, treatable types comprise more than 50 per cent of all

(Continued on page xxii)

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cases of pneumonia, save only in certain districts of the South. Now that other therapeutic serums (V, VII, VIII and probably many more by the device of rabbit serum) have been developed, the percentage will be higher. Neufeld typing of the sputum and cultures of various body fluids is a rapid and accurate method of bacteriologic diagnosis of pneumococcus types. The selection of patients for efficient and satisfactory treatment requires early diagnosis by the physician and intimate consultation with the bacteriologist. Serum must be given in adequate dosage by vein and a double dose must be given when blood cultures are positive. Serum must be injected slowly after sensitivity tests are found negative but the entire dose should be given during the first twenty-four hours. Serum accidents have been extremely uncommon and the danger of reactions should rarely preclude treatment. Refined and concentrated horse serum for type I and type II pneumonia when given during the first twenty-four hours is a specific comparable to the best specific biologic remedy save only diphtheria antitoxin. When given within the first four days of the disease, the mortality rate of pneumonia may generally be reduced more than 50 per cent. In the author's experience of three years the mortality was reduced 76 per cent. In 1937 approximately 20 per cent of patients with type I and type II pneumonia in the United States were treated with serum.

ANNUAL SECRETARIES'  
CONFERENCE — JAN. 22

(See page 34)

POSSESSIONS, FUNCTIONS AND NEEDS OF A SCIENTIFIC  
SOCIETY: CHAIRMAN'S ADDRESS

PARKER HEATH, Detroit (*Journal A. M. A.*, July 30, 1938), states that the permanent possessions of a scientific society are its great names and its literature. In a historical sense they form our immortality, men and literature against the erosion of time. Another possession of a scientific body is its fine principles of the spirit. The material consists of the guiding principles, often unrecognized, which direct, shape and give the satisfactions of life. These possessions motivate our colleagues and drive them to high attainment. The functions of a scientific body are to endow life with new discoveries and powers. Members of a medical society have a dual obligation: to sustain and add to our heritage of scientific truth and to treat the sick, the essence of our calling. Need may govern us. Mellowed experience tells us there is no rest from the world's buffets. Ophthalmology needs constant field work to broaden and refresh anew knowledge of her worth to the profession and by her worth to the public at large. Our medical commonwealth needs individual interest and activity to be the best form of government. A real need exists for ampler abstracts in English of the world's ophthalmic literature. Institutions are needed whose dominant note is investigation, in which the routine clinical side is permanently kept in the background. Basic sciences in most institutions are waved aside for the clinical. Ophthalmic physiologic investigations need emphasis. Funds are often necessary to activate research programs. So blood and nervous fiber must be drawn on for the added task of solicitation of such funds. The principle of continuing education—adult education—needs sustained stimulation. The educational methods toward this need may be carried out in our most widely distributed centers of medical teaching, the general hospital. Inspired teachers

(Continued on page xxiv)

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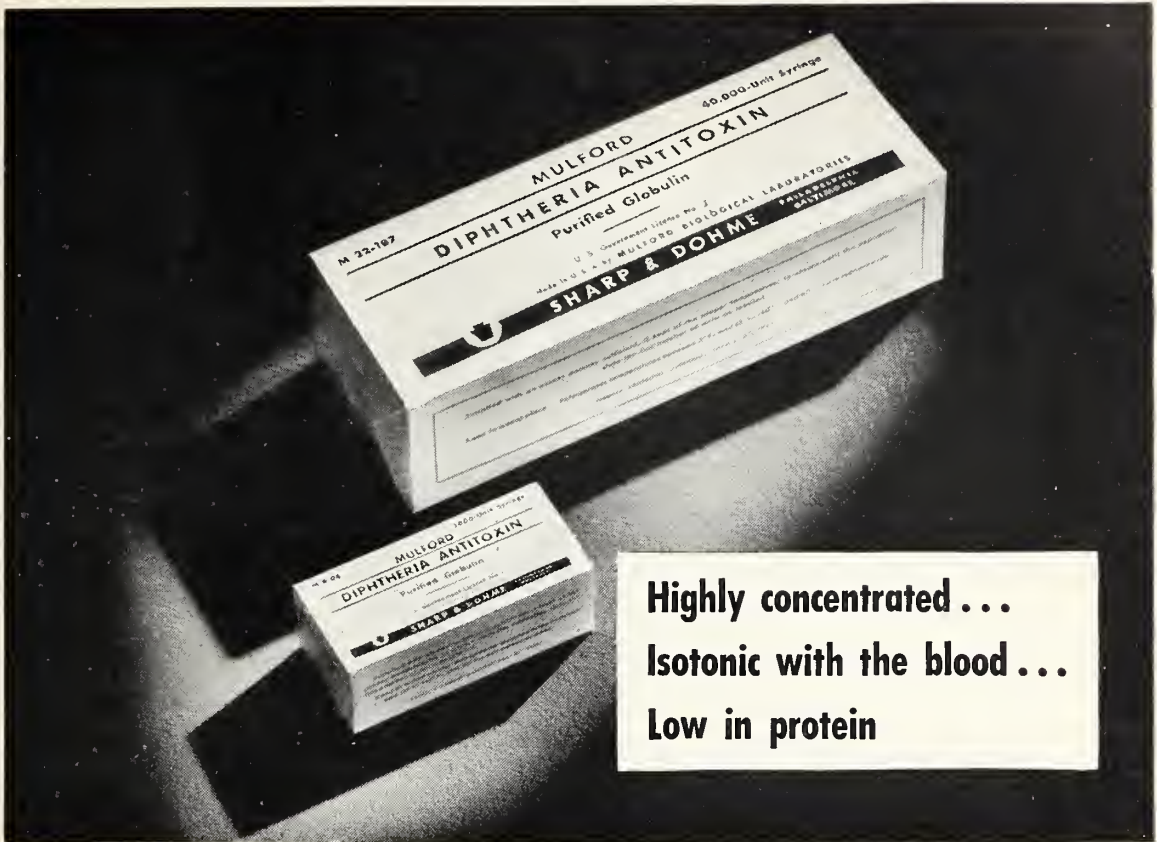
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(Continued from page xxii)

are not essential even if they were available. What is needed is method: a program of a full outline of study.

#### ROENTGEN THERAPY OF LOBAR PNEUMONIA

In January 1933 EUGENE V. POWELL, Temple, Texas (*Journal A. M. A.*, Jan. 1, 1938), employed roentgen therapy on a patient who was ill with lobar pneumonia. Unable to find any references in the literature on dosage, he used a technic which had proved valuable in the treatment of carbuncles. However, he increased the filtration and skin-target distance, so as to irradiate more homogeneously the large mass of tissue that is involved in a consolidated pulmonary lobe. Within a few hours after the treatment the patient was relieved of much of his distress, and within twenty-four hours his temperature dropped by crisis. He then pursued an uneventful and complete convalescence. Since then he has used roentgen radiation in the treatment of 104 cases of acute lobar pneumonia and in thirty cases of bronchopneumonia. Only five of the patients with lobar pneumonia died, and those with bronchopneumonia showed a reduction in mortality from 30 per cent to 13 per cent. From 250 to 350 roentgens of 0.3 angstrom unit of effective radiation (135 kilovolts with 3 mm. of aluminum filter) is given anteriorly or posteriorly over an area a little larger than the involved portion of the lung. If the temperature and white blood cell count have not dropped to normal within thirty-six to forty-eight hours, a second roentgen treatment is given to an opposite field. Usually within two or three hours after the first treatment the patients report feeling much better. Clinically, too, they look less sick. Within thirty-six hours, frequently during the first twelve hours, their temperature drops to normal. The pulse rate, the respiration rate and the white blood cell count drop also, but usually not quite so rapidly as the temperature. A secondary rise in temperature, not very high and lasting only a few hours, is not uncommon. It is only when the leukocyte count stays high or when the temperature remains elevated that the additional treatment is given. The resolution of the pulmonary consolidation practically always lags behind the other evidences of recovery. A few patients with pneumonia of mixed infection have received a third or fourth treatment, but then successively smaller doses were given so as to avoid any autaneous reactions. Except in the treatment of three patients, two of whom died, serum was not used in this series. Bronchopneumonia seems to be more variable and as a whole less favorably influenced than lobar pneumonia. There is no definitely proved explanation as to why patients with pneumonia respond as favorably as they do to roentgen treatment, but the improvement seems to be associated with the destruction of the infiltrating leukocytes. Roentgen therapy appears to be the preferred method in the treatment of pneumonia. So far the only contraindication seems to be definite leukopenia, such as is encountered occasionally in patients with postinfluenzal pneumonia.

#### TOXICITY OF SULFANILAMIDE

E. K. MARSHALL JR., W. C. CUTTING and KENDALL EMERSON JR., Baltimore (*Journal A. M. A.*, Jan. 22, 1938), discuss the acute toxicity of sulfanilamide and acetyl-sulfanilamide for mice, rabbits and dogs, as well as chronic toxicity for dogs and rats. Certain observations on the effect of sulfanilamide on the blood picture, acid-base equilibrium and renal function are included. All administration of sulfanilamide or acetyl-sulfanilamide has been by the oral route. The data reported for

mice, dogs and rabbits indicate that the acute toxicity of sulfanilamide is comparatively small but that the substance in very large doses is toxic. The experiments give no indication of chronic toxicity for dogs or rats. No pathologic changes in organs have been observed. The acetyl derivative to which the substance is partly changed in man is more toxic than sulfanilamide. Owing to poor absorption when given in large doses by mouth, the toxicity of the acetyl-sulfanilamide is much underestimated on oral administration. A lower concentration of this substance in the blood than sulfanilamide produces toxic symptoms. The median lethal dose of sulfanilamide for man is unknown and it is impossible to deduce it from animal experiments. However, it is probable from what is known of the effect of sulfanilamide on patients that the drug is more toxic for the human being than for animals. With the inevitably greater individual variation in susceptibility exhibited by diseased human subjects than by normal laboratory animals, one may expect severe toxic effects in the occasional hypersensitive human subject from the comparatively large therapeutic doses used. The acetyl derivative is present in comparatively low concentration in the blood of patients receiving the drug, but should an occasional individual acetylate much more of the drug than the average, toxic symptoms might result. Since the drug is excreted more slowly than normal in conditions of decreased renal function, care should be exercised in its administration. On the basis of the authors' animal experiments, it would appear that the direct toxic effects reported in man are initial stages of intoxication. Whether or not these toxic effects will occur and their intensity, if present, will depend on the susceptibility of the individual patient and the dose of the drug used. The idiosyncrasies so far reported are extremely serious. The cerebral symptoms shown by man are similar to those produced by large doses in dogs and would be expected in man with smaller doses. Without a determination in man of two of the three variables (carbon dioxide content, carbon dioxide tension and hydrogen ion concentration) concerned in the acid-base equilibrium of blood, one cannot be sure that the condition in man is acidosis except from analogy to their experiments on dogs and the fact that administration of alkali relieves the symptoms. The minor toxic manifestations to be expected in man from animal work and from the greater individual variation in diseased patients would seem to be no contraindication to the use of the drug when definite therapeutic indications exist. However, owing to the fact that the drug can possibly produce serious toxic symptoms in a hypersensitive individual as well as the known occasional idiosyncrasy of a serious nature, sulfanilamide should not be used indiscriminately.

#### HUMAN REQUIREMENTS FOR VITAMIN B<sub>1</sub>

For the ideal type of information needed to answer the question of the human requirement for vitamin B<sub>1</sub> it was of course necessary to await isolation of the factor in pure form and tests of it on the human species, something accomplished only recently. It has not as yet been possible to make as many tests with the pure vitamin as might be desired, but these may reasonably be expected in the near future. GEORGE R. COWGILL, New Haven, Conn. (*Journal A. M. A.*, Sept. 10, 1938), presents a formula which indicates that the value of the vitamin B<sub>1</sub>:calory ratio increases with increase in body weight. Estimates of the human requirement for vitamin B derived from his formula pertain to the minimum or beriberi-preventing level; the optimal intake is undoubtedly much greater. The vitamin B<sub>1</sub> requirements for the normal adult, the mother and the infant and the child are discussed and computed. Heightened metabolism and loss through excretory channels are some of the clinical factors that influence the vitamin B<sub>1</sub> requirement.





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### COLD VACCINES: AN EVALUATION BASED ON A CONTROLLED STUDY

The study that H. S. Diehl, A. B. Baker and D. W. Cowan, Minneapolis (*Journal A. M. A.*, Sept. 24, 1938), report on has extended over a period of three years and included work with one vaccine administered subcutaneously and two administered orally. The subjects were all students of the University of Minnesota who volunteered to participate in the study because they were particularly susceptible to colds. A "control group" was observed during each year of the study. Such groups were chosen at random from the students who applied for cold prevention treatment; the members were treated in exactly the same manner as those of the vaccinated group, and they believed throughout the period of the experiment that they were receiving vaccine. Sterile physiologic solution of sodium chloride was administered hypodermically as a control for the subcutaneously administered vaccine and lactose filled capsules as a control for the vaccines administered orally. The members of the control groups reported a great reduction in the number of colds during the experimental period as compared to the number that the same students reported for the previous year. In fact, these results were as good as many of those reported in uncontrolled studies which recommend the use of cold vaccines. The group which received vaccine subcutaneously experienced an average of 25 per cent less colds per person than did the control group. This difference occurred during both years of the study and is statistically significant. Practically, however, it is of little or no importance, because a reduction of 25 per cent in the average number of colds in a group of individuals is not sufficiently great to justify the time and expense involved in carrying out the intensive vaccination procedure which was utilized. The group which received the polyvalent vaccine administered orally experienced just as many colds as the control group during both years of the study. The results reported by the students who took Roscnow's streptococcus vaccine parallel exactly those reported for the control group.

### SENSITIVITY TO RABBIT SERUM

AARON BROWN and PHILIP H. SECHZER, New York (*Journal A. M. A.*, Oct. 8, 1938), performed intradermal and conjunctival tests with rabbit serum on 101 allergic patients. One person gave a systemic reaction to the conjunctival test, and the increasing use of rabbit serum prompts the authors to urge caution in the administration of this agent. The conjunctival reaction, they feel, is a good indicator of general sensitivity, and while fewer persons may be sensitive to rabbit serum than are sensitive to horse serum, the same care should be used with rabbit as with horse serum. The tests with rabbit serum gave sixty-nine negative intradermal reactions, twenty-two flare reactions, six 2 plus reactions, two 3 plus reactions and two 4 plus reactions. One person gave an immediate positive intradermal and conjunctival reaction, followed within five minutes by a systemic reaction, with urticaria, angioneurotic edema and asthma, requiring repeated injections of epinephrine for relief. These symptoms persisted in a mild way for several days, requiring the continued use of ephedrine, augmented by occasional administration of epinephrine.

### "ISMS"

Socialism means that if you have two cows, you give one to your neighbor. Under Communism, you give both cows to the government which gives you back some of the milk. Under Fascism you keep the cows but give the milk to the government, which sells you some of it back. And under New Dealism you shoot one cow, milk the other and then pour the milk down the sink!—*Detroit Free Press*, November 14, 1938. (Reprinted from Michigan State Medical Journal for December, 1938.)

### SOCIALIZED MEDICINE

Clerk—Well, what can we do for you?

Patient—I'm sick, I've got—

C.—Name, please.

P.—Smith, William.

C.—Age.

P.—Forty-five. I've paid my two dollars a month. I'm entitled to a year's worth of sickness. I feel terrible. I think I've got appendicitis.

C.—Appendicitis? But this is 3 P.M., Tuesday, the third. Appendicitis is on Mondays. Come back next Monday at ten A.M.

P.—Monday? Can't you have appendicitis on Tuesdays?

C.—Monday, I said. You're holding up the line, Smith.

P.—Well, I think maybe I've got a goiter, too.

C.—Just a moment (Leafs through book). Ah, goiter! Second and fourth Thursdays. You'll have to skip it this week. Keep moving.

P.—Well, my wife thinks maybe my tonsils—

C.—Oh, tonsils. Friday, the thirteenth.

P.—Well, then, my boy here. I'm afraid he's got a broken collar bone. He fell out of a tree.

C.—You should have come in earlier; this morning between eight and twelve. Fractures over till Saturday.

P.—But he just fell out this afternoon.

C.—Should have fallen this morning. Step lively.

P.—Well, I wanted to ask about my daughter, too. She's never sick herself, but seems as if she's always bringing things home. We've had scarlet fever and diphtheria and everything contagious. I thought she might be a carrier. Maybe she could take some sort of a test.

C.—Test? Carrier? Wrong department. Have her take the Civil Service examination. Time's up. Next.

LOUISE RABB

—By courtesy of the JUDGE magazine.

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### THE PRESENT STATUS OF VENEREAL DISEASE CONTROL

R. A. VONDERLEHR, M.D.\*

Washington, D.C.

The present campaign against venereal disease may in one sense be said to have begun with the examination of the draftees for the World War. The rates for venereal disease among the drafted men were so high as to bring the seriousness of the problem forcibly to the attention of all health authorities. These figures did not become a matter of popular knowledge, however, and the public was not aroused. Concern remained limited largely to the medical profession. Syphilis and gonorrhea were still words not to be mentioned in public.

With the appointment of Doctor Thomas Parran as Surgeon General of the United States Public Health Service in April, 1936, however, a much more active fight on these age-old maladies was begun. This physician, as chief of the Division of Venereal Disease of the United States Public Health Service and later as Public Health Commissioner of the State of New York, had abundant opportunity to observe the manifold tragic results of the venereal diseases and to realize that they were scourges that could be controlled. His article "Why don't we stamp out syphilis" published in the *Survey Graphic* and abstracted in the *Readers Digest* for July 1936 was widely read and largely as a result of it the ban on the word "syphilis" was lifted.

A renewed attack on the venereal diseases was begun with the calling of the Conference on Venereal Disease Control Work in Washington, December 28-30, 1936. This aroused widespread public interest and since that time the fight has been carried on in the open with the active cooperation of an awakened public.

What have been the results of this two years' intensified campaign against venereal diseases and what means have been adopted to bring about control?

Funds are necessary in carrying on all public health campaigns. One of the most important attainments was the enactment by Congress of the Venereal Disease Control Act signed by the President on May 24, 1938. This Act authorizes three million dollars for the fiscal year 1939 for the prevention, control and treatment of venereal disease. Specified increases are authorized for the years 1940 and 1941 and after that appropriations are to be made in accordance with the needs of the work. Increasing Federal grants to the states are, therefore, authorized for an indefinite period of years. It is hoped that this money, if appropriated, will enable the poorer states to adopt effective measures for the control of venereal disease. The campaign may then be waged on forty-eight fronts.

#### CONTROL MEASURES

Specific action for carrying out the provisions of the Act is being taken in almost all of the states. On July 1, 1938, there were only 3 states (South Dakota, Utah, and Wyoming) that did not maintain or cooperate in the maintenance of clinics for the treatment of venereal disease. In 2 of these states, South Dakota and Wyoming, free drugs are provided for the treatment of indigent patients with syphilis. In Utah the counties provide for the treatment of indigents. In 33 states anti-syphilitic drugs are furnished for the treatment of indigent patients and in 14 states they are provided for all patients needing treatment, regardless of economic status.

Drugs are provided for the free treatment of indigent patients with gonorrhea in 14 states and provision is made for the distribution of free drugs for all patients with this disease, no matter what their financial standing, in 4 states.

In all the states diagnostic tests for syphilis and the examination of smears for the detection of gonococci are made available free by the health

\* Assistant Surgeon General, U. S. Public Health Service.

departments. In 41 states smears are made regardless of the patient's financial standing and serodiagnostic tests are made for all patients in 39 states. Darkfield examination for detection of the *Spirochaeta pallida* is done in all except 10 states.

In 27 states there is a separate division or section of venereal disease control in the health department. In 29 there is a full-time venereal disease control officer. In 5 states a part-time control officer is employed.

The importance of detecting all cases of syphilis and keeping them under treatment is being recognized more and more. Provision is made for case-finding and case-holding work by all but 11 state departments of health and in 6 of the latter states this work is carried on by the counties.

There are now special laws or State Board of Health regulations for the control of venereal disease in all the states and in the District of Columbia. Laws have been passed in 9 states (Connecticut, Illinois, Michigan, New Hampshire, New Jersey, New York, Rhode Island and Wisconsin) requiring all persons applying for marriage licenses to have a serodiagnostic test made for syphilis. In 3 states (New Jersey, New York and Rhode Island) there are laws making mandatory routine serodiagnostic tests of all pregnant women.

Many states have requested advisory assistance in working out programs for venereal disease control. The Surgeon General of the Public Health Service has appointed commissioned officers as regional venereal disease control officers and in a number of states with large venereal disease problems medical officers of the Public Health Service have been detailed in an advisory capacity to the State Health Officer. Commissioned officers have also been assigned to the Chicago and New York City Health Departments to help in the coordination of venereal disease control work. Provisions have also been made for the training of physicians in the clinical management and public health control of syphilis and gonorrhea when they signify an intention to work for or cooperate with a state or local health department.

Valuable contributions have been made to the control of venereal disease by the American Social Hygiene Association through stimulating public interest and coordinating voluntary effort in this field.

As a result of this expansion of venereal disease control activities, there has been a marked increase in the number of new cases of gonorrhea and syphilis reported to the State Health Departments, in the number of clinics submitting morbidity reports, in the number of cases discharged as arrested or cured, and in the total number of treatments given.

#### RESEARCH WORK

The Public Health Service has continued to assist the Cooperative Clinical Group which began their investigations 9 years ago. A study of treatment

in *tabes dorsalis* has been published recently. Other investigations are at present being carried on as follows: A study of nonspecific therapy in the treatment of neurosyphilis; conjugal syphilis, the object among other things being to determine the period during which syphilis is communicable; prevention and treatment of prenatal syphilis; efficacy of modern treatment in early syphilis; ocular syphilis with special reference to interstitial keratitis; and cardiovascular syphilis. Another new study has been begun during the year on a correlation of autopsy and clinical data. The object of this study is to determine the number of cases in which syphilis is a primary or contributory cause of death. During the year approximately 6,000 autopsy reports have been reviewed. The response in asymptomatic neurosyphilis to various kinds of treatment was studied and reported in 1938.

At the syphilis research center of Johns Hopkins Hospital a study is being made of the mechanism of the therapeutic action of the arsenic and bismuth compounds in syphilis.

Studies of the prevalence of syphilis are being continued. In Chicago an extensive survey showed that 15,500 patients with syphilis are treated every year. But it is estimated that 3 to 4 times this many patients need treatment in that city. Only about one-half the clinic patients continue long enough to get the minimum treatment necessary for the control of syphilis. This has led the health authorities of Chicago to carry on an even more intense fight against the disease. A mechanical reporting system has been installed which will make it possible to obtain data periodically on the number of cases under treatment and give information as time goes on in regard to the effectiveness of treatment and control methods.

A survey has also been made in Ingham County, Michigan, financed largely by the Ingham County Medical Society. A census was made of all cases of venereal disease under treatment and in addition a routine blood test was made of all patients coming under treatment for any cause whatever in Ingham county for a period of 60 days. The use of these two methods made it possible to establish the ratio between the number of cases actually under treatment for syphilis and the total number of cases in the county in need of treatment. One hundred new cases were discovered.

In addition to experimental work, the director of the Venereal Disease Research Laboratory at Stapleton, Staten Island, New York, has made studies of the efficiency of performance of serodiagnostic tests in state laboratories. This comparative study was conducted in 46 laboratories in 44 states and the District of Columbia. The Venereal Disease Research Laboratory has made its facilities available for the training of personnel from state and local health department laboratories.

In view of the great importance of serologic tests in the control of syphilis, an assembly of serologists and laboratory workers was called at



Hot Springs National Park, Arkansas, in October, 1938. The whole problem of serologic diagnosis was reviewed. The proceedings of this Assembly and the most modern technics of the Eagle, Hinton, Kahn, Kline and Kolmer tests are to be published in a forthcoming supplement to *Venereal Disease Information*.

The problem of the treatment of syphilis in rural communities with a widely scattered population has always been a difficult one. In some communities in the South the workers in the fishing, lumber, and turpentine industries are widely scattered and there are relatively few doctors to care for them. In order to deal with this situation, a traveling trailer clinic was established in southern Georgia. This unit is completely equipped for the collection of blood specimens, performance of clinical examinations, and the administration of treatment. It travels more than five hundred miles a week and treats over five hundred patients. The value of the traveling treatment unit both from a scientific and economic standpoint has been demonstrated.

In November 1937 a commissioned medical officer with special training in industrial hygiene was put in charge of syphilis control in industry. A control program has been outlined which proposes that manufacturers accept patients with syphilis for employment and retain those already employed provided they take treatment. Plant physicians refer patients to family physicians for diagnosis and treatment. If the patient is unable to pay for treatment, the plant physician arranges for his treatment at a clinic. A number of industrial organizations have accepted the plan with enthusiasm and more than 400 workers from one plant are being treated for syphilis.

Recommendations for the control of gonorrhea have been made by a committee of the American Neisserian Medical Society. These were published in *Venereal Disease Information* for January 1938. A supplement to *Venereal Disease Information* is in press giving a review of the literature on the gonococcus and gonococcal infections for the years 1936-1937. A cooperative study is being made on the treatment of gonorrhea including the value and the dangers of sulfanilamide.

The work of the Venereal Disease Research Laboratory has been increased during the past year. Because of the potential importance of prophylaxis in syphilis control, experimental work has been done in an attempt to develop an effective prophylactic agent. Work has also been done on complement fixation methods for the diagnosis of gonorrhea and in the cultivation of Ducey's bacillus for the purpose of making antigens to be used for skin tests in the diagnosis of chancroid. Studies have also been made of the value of sulfanilamide in the treatment of gonorrhea. These studies have been made possible by the fact that the laboratory has access to 160 hospital beds for venereal disease cases and to the large number of patients available in the correctional institutions of New York.

The Venereal Disease Medical Center at Hot Springs National Park, Arkansas, has an outpatient clinic for indigent patients who are able to provide their own meager lodgings, and an infirmary for patients who are totally indigent. These people with highly communicable syphilis and gonorrhea come to Hot Springs each year from every state in the Union. During the past year a total of 108,337 treatments has been given and 78,621 laboratory examinations performed including serologic tests, darkfield examinations, microscopic slide examinations, urine analysis and other special diagnostic tests. During this time 2,231 indigent patients were given infirmary care at the Medical Center. In cooperation with several State Boards of Health, 31 health officers and private physicians were given one month's training in the clinical management of the venereal diseases. Many other physicians, nurses, and medical social workers have studied the methods of the clinic for shorter periods.

The program of the Public Health Service for the control of the venereal diseases includes the following general provisions:

1. Aid to state and local health departments by extending advisory assistance and by the allotment of Federal funds to meet a part of the cost of the development of control work in each state.

2. The prosecution of intensive laboratory, clinical and field studies pertaining chiefly to the public health aspects of these diseases in an attempt to learn more effective or more economic measures for control.

## ABSTRACTS

### ONLY FIFTEEN MINUTES REQUIRED IN NEW SYPHILIS TEST METHOD

**Technic Is Especially Applicable in Cases Where Gonorrhea Also Is Suspected. Philadelphia Doctor Reports**

A new test, requiring only fifteen minutes, for the demonstration of the syphilitic organism is reported by Leon Friedman, M.D., Philadelphia, in *The Journal of the American Medical Association* for Jan. 14.

The test is especially applicable in cases of gonorrhea in which syphilis is suspected and, in comparison with other tests, saves considerable time.

The principle of the test is centrifugation of the gonorrheal discharge, or any other body fluid capable of being collected in a capillary tube, at low speed. This gives a clear specimen of serum suitable for dark field examination.

The author isolated the syphilitic organism from the gonorrheal discharge of one patient fifty days before the blood test showed the organism and in two patients whose history was not suggestive of syphilis.

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YOU ARE DELINQUENT NOW!

## PUBLIC HEALTH ASPECTS OF VENEREAL DISEASES

WENDELL C. KELLY, M.D.\*

Indianapolis

Venereal diseases from a public health aspect are the outstanding examples of unsolved problems in the public health profession. They are the only major communicable diseases about which we know the etiology, the methods of transmission, how to make the diagnosis, and how to cure, that we have not reduced the morbidity, the mortality and the incidence to a low figure.

The incidence and prevalence of syphilis and gonorrhea are beginning to be known, although accurate rates for all sections of the country are as yet not available. They may never be known because it is inconceivable to perpetuate a program of case-finding without at the same time treating and rendering non-infectious the cases found—thus reducing the spread of the disease. Dr. Parran<sup>1</sup> has said, "It would probably be easier to eradicate syphilis than to determine its prevalence."

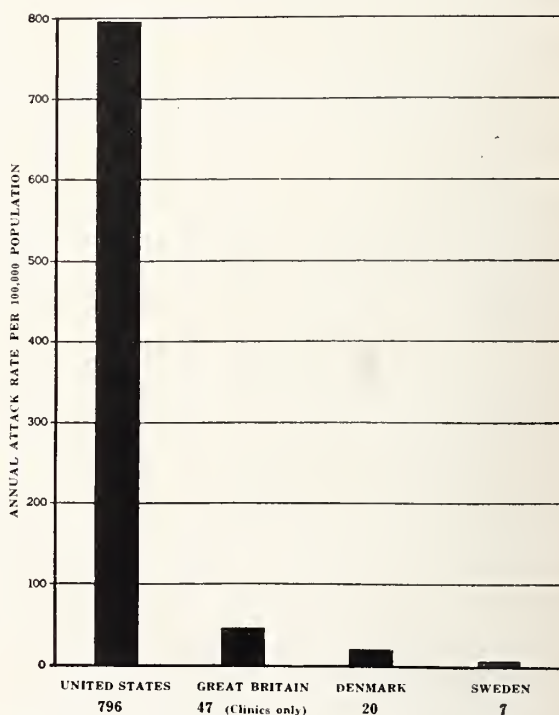
Briefly let us analyze some of the statistics which we now have on the prevalence of syphilis. That gonorrhea and syphilis are more prevalent than any other communicable disease except the common cold now seems to be an accepted fact. We are told that syphilis strikes one out of ten. Why is it that when a physician examines 100 people he does not find 10 of them with syphilis? Vonderlehr<sup>2</sup> has recently answered this question. There are several reasons: (1) There will be many among the 100 persons selected who are either just beginning life or have reached only early adult life and therefore may still acquire the disease. (2) There are those who have had syphilis but in whom the blood test has become negative, either because of treatment or because this manifestation of the disease has spontaneously disappeared. (3) There will be a proportionately smaller number of persons living who have acquired syphilis than of those who have not because syphilis shortens life expectancy between the ages of 30 and 60 years by 17 to 30 per cent. Thus the probability is that about one out of 100 in a random sample would have syphilis. Thus although the annual attack rate seems low, it is found that 10,000 people before the attainment of the fiftieth year of life will have acquired syphilis out of every 100,000 born alive.

The incidence of gonorrhea is much more difficult to determine than that for syphilis. Recent estimates lead us to believe that there are at least nine million persons in the United States who acquire gonorrhea, annually. Evidence that the sulphanilamide group of drugs had reduced this figure is lacking. In countries where syphilis con-

trol is far superior to ours, the incidence of gonorrhea has not been reduced.

The incidence of syphilis in Indiana is impossible to determine. Since we have a large rural area, composed mostly of white people, we can reasonably suppose that our rate is slightly lower than for the nation at large. Our Negro population, of course, elevates our rate considerably. Of the 1,165 Negro men and 91 Negro women present on June 30, 1938, in the five Indiana penal institutions for men and the two penal institutions for women, 24 per cent and 44 per cent, respectively, had positive Wassermanns at the time of admission. (The rate among inmates of state institutions is usually higher than for the general population.)

A recent survey by the State Welfare Department in Indiana reveals that in the 17 state institutions where routine Wassermanns are given, 11.3 per cent of the population present on June 30, 1938, had a positive Wassermann at the time of admission. Further, that the four penal institutions for men and the two penal institutions for women had a rate of 11.9 per cent and 22.3 per cent respectively. Just how much syphilis is a factor in the institutionalizing of these people cannot accurately be determined but certainly it is of some moment. A comparable study in San Francisco reveals that of 8,071 individuals admitted to the San Francisco



Incidence of Syphilis in United States, Great Britain, Denmark, and Sweden in 1935 per 100,000 population.

\* Chief, Bureau of Venereal Diseases, Indiana State Board of Health.

<sup>1</sup> Parran, *Science*, 87: Feb. 18, 1938.

<sup>2</sup> Vonderlehr, *Venereal Disease Information*, Nov. 1938.



jail, 66 per cent had gonorrhea and 26 per cent had syphilis. Thus syphilis is responsible for tremendous sociological as well as economic and hygienic problems.

Probably the most fertile field for immediate action is the reduction of congenital syphilis. We believe that in Indiana 3 out of 100 babies are born syphilitic. Lynch<sup>3</sup> has given us some general rules for the prevention of congenital syphilis:

1. Every woman with gonorrhea should have a serological check.
2. Every syphilitic woman should have adequate treatment but should also be warned of the need to report to her physician early in any subsequent pregnancy and inform him of her syphilitic status (a woman who has once had syphilis usually requires treatment throughout each pregnancy).
3. Every pregnant woman should have a blood test early in pregnancy.
4. After the diagnosis of syphilis is made during pregnancy, treatment should be intensive.
5. At time of delivery a cord Wassermann should be obtained in every case. (For determination of the serologic status of mother only. Since the child's serologic identity is not established until several weeks after birth, a Wassermann test on cord blood does not prove the presence or absence of congenital syphilis. Additional clinical roentgenologic and serologic studies will establish the status of the child.)

A pregnant syphilitic woman will have a healthy child in only 17 per cent of the births. With adequate treatment, 91 per cent healthy children will be born. Treatment started anytime during preg-

nancy gives an average of 65 per cent healthy children as against 17 per cent with no treatment.

The importance of the private practitioner in the control of syphilis cannot be over-emphasized. The control of syphilis from a public health point of view depends upon three cardinal principles:

1. **Case-finding.** We must uncover the unknown and untreated syphilitic people in our environment. Physicians must become serologically minded in their daily practice. Industry and groups in the lower economic stratum must be given blood tests. If we could incorporate a blood Wassermann in all insurance examinations along with an adequate pre-marital examination we would uncover the majority of syphilis among our people today. (At the time of writing a pre-marital bill is being prepared for the 1939 meeting of the Indiana Legislature.) We must raise the standards of our serological laboratories to the point where errors will be at a minimum.

2. **Contact follow-up.** Trained investigators must be put into the field, not only to keep infectious cases under treatment until they are non-infectious, but they must find and place under treatment the source of the infection and see that exposed persons are examined. These men should be tactful, reliable workers who could give their services to private as well as clinic patients. We now have 23 such investigators in Indiana.

3. **The fundamental basis for the control of syphilis lies in adequate treatment for infectious patients.** Here we must depend largely upon the private physician. Only one patient in five actually under treatment for syphilis receives the minimum treatment necessary to render him non-infectious. Ordinarily public health organizations do not concern themselves with the treatment phases of diseases but in the control of syphilis we must provide adequate treatment. Private physicians and health departments must cooperate and such cooperation cannot but be beneficial to both. The physician's obligations are: (1) To make the diagnosis; (2) Control by treatment the known infections; (3) Discover related infections. He must be aided in each case by the health department. Inasmuch as 80 per cent of syphilis occurs in the low-income group, the treatment of the syphilitic indigent becomes a public health problem. While clinics are not the ideal solution of this problem, they are probably the most economic and efficient system we have at present for the more urban areas. Such clinics should be well located with day and evening operating hours, and above all should be in the charge of a specially trained physician.

Clinics should admit the following patients: (1) Any patient for emergency diagnosis; (2) Any patient referred by a private physician for consultation or special tests; (3) Any patient honestly unable to pay a private physician for treatment. In rural areas, treatment in a private physician's

# SIX INSANE HOSPITALS

Institutions	Total	Positive	Percent
	Inmates	Wassermanns	
Central State Hospital .....	1877	298	15.9
Logansport State Hospital .....	1726	190	11.0
Richmond State Hospital .....	1390	213	15.3
Evansville State Hospital .....	1182	117	9.8
Madison State Hospital .....	1682	170	10.1
Fort Wayne State School .....	1930	164	8.5
Total .....	8132	1036	12.7

# STATE INSTITUTIONS

Institutions	Positive	Total	Percent
	Wassermanns	Inmates	
Central State Hospital .....	298	1877	15.9
Logansport State Hospital .....	190	1726	11.0
Richmond State Hospital .....	213	1390	15.3
Evansville State Hospital .....	117	1182	9.8
Madison State Hospital .....	170	1682	10.1
Fort Wayne State School .....	164	1930	8.5
Muscatatuck Colony .....	36	603	5.1
Village for Epileptics .....	89	905	9.1
Soldiers' and Sailors' Chil. H. ....	13	864	1.1
State Tuberculosis Sanatorium .....	5	150	3.0
Indiana State Prison .....	357	2643	13.5
Indiana State Reformatory .....	237	2015	11.8
Indiana State Farm .....	106	1070	9.9
Indiana Woman's Prison .....	65	153	42.5
Indiana Girl's School .....	34	290	11.7
Indiana Boy's School .....	7	470	1.4
Total .....	2149	18950	11.3

(Obtained from Thos. G. Hutton, Dept. of Public Welfare.)

<sup>3</sup> Lynch, Minnesota Med. 21: 313-317, May, 1938.

office on a reduced fee basis is usually the method of choice.

In order to aid the private physician in treating the indigent and semi-indigent of his practice, the State Board of Health makes the following services available:

1. Free diagnostic services. Both blood and spinal fluid diagnostic tests are available without charge for indigent and semi-indigent patients.

2. Free drugs. Drugs in sufficient quantities to render an infectious patient non-infectious will be mailed to each physician on requisition.

3. Through health officers and trained investigators, follow-up service is available on request.

4. Consultation service. Consultation service although limited at present must be extended so that qualified syphilologists will be available to the private practitioners for consultation.

The private physicians will profit from a well-developed program in the following ways:

1. Many more patients come to the physician for treatment.

2. Many more patients who come for treatment are held in treatment over a longer period.

3. The physician no longer finds it embarrassing, as he did a few years ago, to confront a patient with the fact that he has syphilis.

A sound, ethical, educational program must go hand in hand with a control program if it is to succeed. Underwood<sup>4</sup> has recently said: "All of us know the cause of these diseases. We know that they outrank practically all of the other dangerous

preventable diseases, in the amount of serious illnesses and tragedy they cause. We know how to control them, and we know, also, that the application of necessary measures of prevention and control cannot proceed more rapidly than the formation of public opinion to support them."

The general public must be taught three things: (1) That syphilis has serious complications, (2) that a clinical cure can be obtained in a large majority of patients with adequate treatment, and (3) that syphilis is not a stigma but a raging communicable disease in our midst. Public health authorities are furnishing on request vast quantities of literature, films, radio and newspaper articles, displays, as well as speakers to do this job. No one, however, can replace the local practicing physician as the man of choice to deliver such information. He should be supported by public health authorities who could furnish cooperatively part of the program such as motion pictures and operator.

In summary, syphilis and gonorrhea are collectively one of the foremost public health problems confronting us today. We know that the morbidity and mortality from these diseases far exceed any other communicable disease. That they present huge economic and sociologic problems cannot be questioned. The beginning of all control work lies in the hands of practicing physicians and only by cooperation of health departments with the physicians will any program of control succeed. We can proceed in the control of these diseases no faster than we progress in the education of the public.

<sup>4</sup> Underwood: *Tri-State Med. J.* 10:20-25 (March) 1938.

#### ABSTRACT: HIGH CONCENTRATION OF SULFANILAMIDE MOST EFFECTIVE

High concentrations of sulfanilamide will inhibit the growth and multiplication of bacteria, Perrin H. Long, M.D., Eleanor A. Bliss, Sc.D., and W. Harry Feinstone, B.S., Baltimore, state in their article, "Mode of Action, Clinical Use and Toxic Manifestations of Sulfanilamide," in *The Journal of the American Medical Association* for Jan. 14.

With severe infections, capable of being cured by sulfanilamide, it is important to attain an effective concentration of sulfanilamide in the blood as soon as possible. The authors advise that a large initial dose of sulfanilamide be given in order to bring about the desired level of 10 milligrams per every 3.3 ounces (100 cc.) of blood as quickly as possible and that this level be maintained by doses of the drug given at intervals of four hours both day and night.

The maintenance dose should be given until there is a marked improvement in the patient's condition. It should then be decreased slowly day by day, but should not be entirely discontinued until the patient is up and about.

If this routine is followed, recurrences of infection will be rare.

In severe infections the administration of sulfanilamide should be discontinued only if severe complications occur.

In the case of milder infections, levels of sulfanilamide in the blood of from 5 to 10 milligrams are generally adequate to bring the infection under control. Here again it is also important to maintain an even concen-

tration of the drug and giving it at intervals of four hours is best.

If the patient cannot swallow tablets, if vomiting is present or if the sulfanilamide is not readily absorbed from the gastrointestinal tract, the drug can be injected.

The successful treatment of infections of the urinary tract with sulfanilamide depends to a large degree on obtaining and maintaining a satisfactory concentration of sulfanilamide in the urine. Such a concentration cannot be obtained in patients whose kidneys are impaired.

The amount of sulfanilamide per pound of body weight required to establish adequate levels of the drug in the blood is considerably greater for children than for adults. This is due to the fact that children take more fluid per pound of body weight than do adults, and when fever is present this difference is even more marked.

Sulfanilamide has produced many toxic complications. Among the most common ones observed in human beings are loss of appetite, nausea, vomiting, dizziness and headache. Alcohol is contraindicated during sulfanilamide therapy, as it tends to accentuate cerebral disorders. Patients who are receiving sulfanilamide should be warned against driving automobiles, because the dizziness and decreased mental acuity sometimes seen may render them dangerous on the road.

Because of the toxic complications the patient should be carefully supervised, hospitalized whenever possible, while sulfanilamide is being given. The patient who is receiving sulfanilamide needs the intelligent and careful supervision of a physician.



## SYMPOSIUM ON SYPHILIS\*

## 1.—THE LABORATORY DIAGNOSIS OF SYPHILIS

WEMPLE DODDS, M.D.

Crawfordsville

In view of the importance of the darkfield method of examination of material from suspected syphilitic lesions, it is regrettable that the method is probably neglected more than any other laboratory procedure. Universal agreement that the patient's chance for complete and lasting cure is increased from 25 to 35 per cent by this method compels the conscientious physician to attempt the diagnosis of syphilis in the seronegative dark field-positive phase. In practice the physician is in many cases immediately confronted with serious obstacles. If he does not feel competent to attempt the examination himself, he is often unable in certain communities to obtain competent assistance.

Thus circumstances may compel the physician to attempt the examination himself. Although the writer is not in complete agreement with the following, in equipping himself to perform the examination the physician may do well to heed the advice and admonition of Stokes<sup>1</sup> who states: "Only the experience of teaching darkfield technic to medical students has convinced us that the use of the darkfield as an instrument for the early diagnosis of syphilis has theoretical rather than practical value in the movement against the disease as a public health problem. Every practicing physician should be in touch with a hospital pathologist or a venereological specialist or a diagnostic laboratory of whose equipment and expertness he is personally sure."

Darkfield methods are applicable to both primary and secondary lesions, particularly the vesicular syphilides of the latter group. In the case of lesions of the mucous membrane, extreme caution must be exercised if error is to be avoided. Many of the spinal micro-organisms of the mucous membrane require most competent observation to distinguish from *Treponema pallidum*. The morphological characters of *Treponema pallidum*, its peculiar cork-screw like motion, and the desirability of observing these in the living state, make the darkfield method an absolute necessity in such cases.

No antiseptic dusting powder should be applied to suspicious lesions prior to darkfield examination. Arsphenamine or mercury given previous to the examination will render the examination negative.

A negative opinion in the case of a suspicious

lesion demands preferably repetition of the examination on three successive days, and if negative after three examinations, serological tests should be performed at three successive monthly intervals.

In all cases blood for serological tests should be drawn at the time of performing the darkfield examination.

Since the laboratory diagnosis of most cases of syphilis, both early and late, and all cases of latent syphilis, depends upon serological methods, it would be desirable that the clinician be informed concerning the relative value of these tests. Unfortunately this is a matter incapable of hurried summary.

One cannot reconcile the belief of many clinicians that the Wassermann is a non-specific reaction often encountered in non-syphilitic persons, with the fact that many cases are diagnosed and treated solely on the basis of a positive serological test. Either the belief is untrue or the practice is reprehensible.

Space does not permit a detailed discussion of the various serological tests. Suffice it to say that in Indiana the tests which have gained the most popularity are the Kolmer-Wassermann, the Kahn and the Kline, the first employing the principle of complement-fixation and the latter two being flocculation tests. It is generally regarded that at least two or in many cases three serological tests should be performed on each serum.

In order to expedite matters, the discussion will now limit itself to the questions which most frequently puzzle the physician.

## FALSE POSITIVE TESTS

These must be discussed under three headings:

1. *Technical false positive reactions.* A large number of technical factors involved in performing the test may bring about such a result. The majority of false positive reactions belong in this category and the frequency varies with technic and technician from 0.1 per cent to as high as 2 or even 4 per cent. Because they do occur even in the best laboratories, no patient should ever be treated for syphilis on the basis of a single positive serological test.

2. *Anomalous false positive Wassermann reaction.* It is known that the serum of several normal animals is Wassermann positive. The utility of such tests would thus be impaired even if it occurred in only a very small number of persons. It seems extraordinarily rare, certainly less than one in 5,000.

3. *Biologic false positive tests.* A variety of clinical conditions have been stated to cause false

\* Presented before the Section on Medicine of the Indiana State Medical Association at the Indianapolis session, October 5, 1938.

<sup>1</sup> Stokes, John H.: *Modern Clinical Syphilology*, ed. 2, Philadelphia, W. B. Saunders, 1938.

positive reactions. It is significant that most of these reports appeared shortly after the Wassermann test, and as the test has been refined it has been gradually recognized that most of these earlier reports were in error. It is necessary to state categorically because of lack of time that available data indicate that tuberculosis, diabetes, pregnancy, anesthesia, jaundice, malignancy, high fever and hypercholesterolemia, seldom if ever cause false positive reactions. It is possible, although inconclusively demonstrated, that false positive reactions occur in trypanosomiasis, relapsing fever, infectious mononucleosis and malaria. Fully 50 per cent of leprosy patients are seropositive, and in yaws the reaction is regularly positive. Excluding these six diseases, a persistently positive test, even in the absence of history or clinical evidence, may be taken as *prima facie* evidence of syphilitic infection. Statistical findings amply justify the every-day clinical practice of instituting antisyphilitic treatment solely on the basis of repeated positive serologic tests.

#### PARTIAL POSITIVE TESTS

The interpretation of 1 plus, 2 plus and 3 plus reactions is probably the bane of the physician's existence.

It was suggested in the conclusions of several recent serological conferences<sup>2</sup> that the results of serological tests be reported as negative, doubtful, or positive. However, until such practice is universal the physician will receive 1 plus, 2 plus, and 3 plus reports. How is he to interpret them?

Usually such a report from a reliable laboratory signifies syphilis. If subsequent tests are negative, the result is to be ascribed to a laboratory error; however, if repeated tests give consistent results or, on the other hand, a series of reports such as "doubtful," "positive," "positive," "doubtful" is obtained, the doubtful report clearly indicates the presence of syphilitic infection.

#### NEGATIVE TESTS

A single negative test does not exclude syphilis. If the test is repeated in the same laboratory or perhaps in another laboratory, a positive result may be obtained. This simply indicates that the reagin is present in small quantity but the patient is just as syphilitic as a four plus reactor.

#### ANTICOMPLEMENTARY REPORTS

These have no significance as to the presence or absence of syphilis. The physician should employ reasonable care in collection of the specimen and the tube should be clean and preferably sterile particularly when the specimen must be mailed to the laboratory.

#### CONFLICTING SEROLOGICAL TESTS

Conflicting reports between different tests are common. When one test is definitely positive and the other is doubtful, the tests are mutually confirmatory and the patient has syphilis. When one test is positive and the other test is negative, interpretation is most difficult. Laboratory error must first be excluded and, this being done, a persistent partial positive report by a competent serologist indicates syphilis in all probability.

In the majority of cases the discrepancies between various tests are simply a question of relative sensitivity. In cases of late or latent syphilis in which the amount of reagin present in the serum is small, these discrepancies may be very confusing to the physician and the only advice possible is to urge the physician to be sure of his laboratory. Until standardization is accomplished, these discrepancies will occur.

Confliction between complement-fixation tests and flocculation tests is frequently encountered. Majority opinion regards that flocculation tests are more sensitive but in spinal fluid examinations the Wassermann is generally more sensitive. On the other hand, sera are often encountered giving positive complement-fixation and negative flocculation. This is one of the strongest arguments that complement-fixation and flocculation tests are mutually supplementary aids in diagnosis.

#### METHOD OF CHOICE

The Wassermann test has been discarded in many laboratories. Justification for this action is open to serious question by many competent serologists. The arguments cannot be adequately discussed here. Suffice to say that the conferences conducted under the auspices of the League of Nations Health Organization have been subjected to serious criticism chiefly because adequately sensitive Wassermann technics were not represented at these conferences and it, therefore, occasioned no surprise when the Kahn test proved overwhelmingly superior. It appears that no dogmatic statement as to the superiority of the Wassermann or flocculation test is justified by the available data.

The practice of using two or more flocculation tests as so-called "exclusion tests" has become widespread. It is safe to say that all but a very small percentage of cases of syphilis will be discovered in this manner, and that in the smaller hospitals this procedure may be recommended with the reservation that in the case of partial positive reactions, the tests be repeated by the complement-fixation method.

It is to be hoped that the conferences now being conducted under the joint auspices of the United States Public Health Service and the American Society of Clinical Pathologists will aid in answering many of these important questions. In the meantime, it behooves the physician to select his serologist carefully.

<sup>2</sup> League of Nations Health Organization: Report of the Technical Laboratory Conference at Copenhagen, 1923. Geneva.

League of Nations Health Organization: Report of the Second Laboratory Conference at Copenhagen, 1928. Geneva.



## 2. THE HEALTH DEPARTMENT IN SYPHILIS CONTROL

MINOR MILLER, M.D.

Evansville

It is generally agreed that the control of syphilis resolves itself into the diagnosis and treatment of all cases of the disease. Inasmuch as syphilis is purely a communicable disease, and owing to the fact that it is estimated that more than three-fourths of all the cases are never diagnosed or treated, and that of those who do receive treatment, less than 15% take an adequate amount, it would appear that the health department occupies the key position in the control of this malady. Certainly, leadership in an undertaking of this kind is vitally necessary and the health department is in position to supply this leadership to the public and profession alike.

Since so many of the total number of cases of syphilis never receive any treatment and are the sources from whence we draw our new infections, it is evident that the public is in need of education regarding the seriousness of this disease and the importance of seeking medical attention at the first suspicious circumstance indicative of its presence. The public is becoming more and more receptive to information of this sort and it should be the duty of the health department to assume the leadership in the dissemination of this information, and to make sure that the information is authoritative. Unfortunately, not all the information that is receiving publicity at the present time is of the right sort. Too much discussion in the public press of diagnostic procedures and treatment schemes is very undesirable. The layman should be educated to seek medical advice and not how to diagnose or treat syphilis. We are already cursed with a plethora of tavern syphilographers who possess vast knowledge of the disease, most of which is untrue and much of which is downright dangerous.

After the public has been educated to seek diagnosis and treatment, facilities for such treatment must be made available. As four-fifths of the infections occur before the patient reaches the age of thirty, there are quite a number of patients (estimated at various figures to as high as 80% of the total number) who are unable to finance diagnostic tests and treatment. It is, therefore, the duty of the health department, as the guardian of the public health, to make suitable provision for the care of such persons. The density of the population in the different communities will determine the method to be used. In urban centers the establishment of separate clinics with full-time personnel, and in rural districts utilizing part-time physicians or the contracting with private physicians for case treatment may be the plan of choice.

The health department should provide consultation service to be available to any physician desiring to make use of this service either for clinic or

private patients. The assistance of an expert is often of prime importance to aid in the management of difficult cases. One such consultant should be attached to the State Department of Health. There is some divergence of opinion on this point. Some hold that the State Department of Health is not concerned with the treatment phases of the problem, but it must be remembered that the only effective method of control is through the thorough treatment of the individual cases. For this reason, it appears that it is well within the province of the State Department of Health to assist in providing expert care for all cases.

When cases are discovered, it will be the duty of the health department to seek out the sources of infection as well as all the contacts who may have been infected, to the end that these individuals may be examined for infection and treatment instituted when indicated. This service must include not only those patients treated at public expense, but must also be available to the private physicians whenever assistance is needed in rounding up sources of infection and contacts. *Private and clinic patient's contacts and sources must be investigated alike if syphilis is to be controlled.*

When a check of the records is made to ascertain how many patients continue treatment until an adequate amount has been given, we find that an appalling number discontinue their treatment long before a sufficient amount has been administered. It should be a part of the duties of the investigator doing the follow-up work for the health department to locate delinquent patients and to get them back under the supervision of a physician and to keep them under such supervision until they are released. Every lapsed case should be followed and especially those who are actually or potentially infectious. This service should, of course, extend to the lapsed cases of the private physicians and a due regard for the secrecy desired by the patient should be maintained at all times when compatible with the good of the public health. When necessary the police powers of the department may be invoked to control the recalcitrant patient, and while it is possible to force treatment under our existing laws, absolute quarantine will break down the objections of the most stubborn patient and his reluctance to submit to treatment will vanish in favor of release.

Co-operation of health departments with the departments of other jurisdictions should be very close, and the removal of a patient from one jurisdiction to another should be accompanied with full information relative to the state of the disease together with complete diagnostic and treatment records.

The health department must enlist the assistance of both the public and the profession to control syphilis. Syphilis will not be controlled until such time as the public is educated to an understanding of the imperative need for the treatment and control of those having the disease, and realizing this need, is willing to submit to the necessary measures to attain that end. Syphilis will not be controlled until every patient and his source and contacts are treated when found to be infected and treatment continued regularly until an adequate amount has been administered, and careless or

vicious patients compelled to undergo such treatment. Syphilis will not be controlled until the private physicians and the public join with the health department to accomplish the task. The health department occupies the keystone position in any system of syphilis control. It should first prepare to furnish its portion of the program and then assume the leadership and draw the profession and the public into a voluntary unity of action to eradicate this disease.

COURT HOUSE ANNEX.

### 3. THE TREATMENT OF LATENT SYPHILIS

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It is not necessary to call your attention to the mode or route of infection pursued by the *Treponema pallidum* in its invasion of the human body. When once the disease is entrenched, its course of human plunder is of fairly constant nature. It is natural to think of syphilis, in its primary stage, as a localized infection. However, since the route of distribution of the germ is, first, the lymphatics, and then the blood stream, it is apparent that almost coincident with the development of the primary sore, the infection is generalized. Viewed in this way, almost at its outset syphilis is a vascular disease in which all specific tissue injuries are due to injuries of the small blood vessels and to the body tissues which they in turn supply.

It is the purpose of this paper to discuss the treatment of late syphilis. However, bearing in mind the early vascular nature of the disease, it is a temptation to say that *the first and best method of treating late syphilis is to treat early syphilis and to treat it well*. To treat syphilis in its early stages is tantamount to avoiding the entrenchment of the disease in any or all of the various vital organs which the disease might invade.

To define or differentiate late syphilis from early syphilis, we must remember the route of invasion of the disease. Through the medium of the blood, the spirochetes are carried through the large blood vessels to the small arteries and arterioles. From here the spirillum either enters the blood vessel itself through its nutrient artery, or it escapes into surrounding tissues from the small capillaries.

Whenever and wherever the germ localizes itself, it begins to multiply and an inflammatory process is set up. This process is followed by the usual proliferation and deposit of scar tissue around the point of infection.

No definite line of demarcation can be established between late and early syphilis. During that stage of the disease where the spirochetes are held largely within the blood stream or in immediately surrounding tissue, we may speak of the disease as

early syphilis. When the disease has become localized and entrenched in some particular organ or organs we may rightfully speak of the condition as late syphilis. Usually, at the end of two years, the infectious lesions of early syphilis have disappeared and the disease then enters into a period of latency, varying from a few months to a lifetime, but averaging about seven years during which there is no outward sign of the disease, the only evidence of its presence being positive serological findings.

During the time interval of latency and apparent quiescence, two definite sets of pathological phenomena occur. First, the chronic, progressive, inflammatory process mentioned above takes place. This results in chronic perivascular inflammation and fibrosis. Second, in some individuals a more violent, allergic inflammatory reaction occurs. This is accompanied by marked tissue destruction and is known, for descriptive purposes, as the gumma.

The more common sites of predilection for residency of the *Treponema* in late syphilis are the heart, the important blood vessels, the brain, spinal cord and liver. The severity of the late lesions depends on their size and location.

The treatment of late syphilis may be captioned by this therapeutic axiom: That while in early syphilis we treat the disease, in late syphilis we treat the patient. In many patients, cure is not an attainable goal. Factors which influence treatment are the general physical condition of the patient, the duration of his infection, his age, and impairment by other diseases of any or all of the various body functions.

The first aim of treatment should be symptomatic relief and restoration of anatomical and functional normality.

The second aim of treatment should be to maintain the patient in good health, free from the progression of his disease or relapse for his lifetime. An evaluation of the success of treatment



should be the measure of the clinical results obtained.

Infinitely important in the treatment of late syphilis is an adequate examination and an accurate diagnosis. The primary therapeutic consideration will surely depend upon what organs of the body are involved and upon the patient's ability to tolerate treatment. Once having established this personal equation we are able to outline a course of treatment which will fit the individual. It cannot be too strongly said that individualized treatment is almost the alpha and omega of late syphilotherapy. It will spell credit or discredit to the physician insofar as he intelligently applies this principle.

#### DISCUSSION OF DRUGS

Four drugs in various combinations are commonly used in the treatment of all types of syphilis. Each has its individual faults and virtues. The relative treponemicidal potency of these drugs is roughly estimated at: arsphenamine, 10; bismuth, 8; mercury, 4; with the iodides negligible. Mercury is the oldest of the four drugs. Regardless of the method of administration it is excreted very slowly, and is cumulative in the human body. The two principle depots of deposit are the liver and the kidneys. Mercury is oxidized when it enters the body and is found in the blood stream in the form of the albuminate. Excretion of this drug occurs 55% through the kidney and 45% through the gastro-intestinal tract. Mercury is an irritating drug, and one must remember in its administration in late syphilis that an impaired kidney function is sufficient reason not to use this drug. The spirillicidal effect of mercury is almost negligible. A hypothesis exists that it stimulates antibody formation to the treponema. However, its use in the treatment of late syphilis is decidedly on the wane and further discussion of its properties can not be indulged in.

Bismuth is the most recently popularized drug in the field of syphilotherapy. Regardless of extensive literature dealing with the drug, its exact mechanism of action is not known. From a spirillicidal viewpoint it is much more active than mercury and less active in turn than the arsenicals. It has the advantage over the arsenicals of having a much more prolonged action on the body. Whether the drug stimulates antibody formation as mercury is supposed to do is a debatable question and needs further investigation. The drug, regardless of the method of administration, appears in the blood stream in the form of the albuminate. As mercury, this drug is cumulative in its action and its principle depots of deposit are the kidneys and the liver. From the view point of toxicity, bismuth is much less irritating to the kidneys than mercury. Its use, therefore, as a therapeutic agent is becoming more and more common. No less a man than Hinton has warned us that the premature acceptance of bismuth may be only a repeti-

tion of the mistakes made in accepting arsphenamine as a panacea for all difficult and debatable questions surrounding syphilotherapy.

We come now to the compounds of arsenic. The epochal research of Ehrlich and Hatta has given the syphilologist his most powerful spirillicide. The trivalent forms of the arsenical compounds are the most important. Probably no greater phenomena exists in medicine today than the almost instant response in the healing of luetic inflammatory tissue when arsenic is given. The arsenicals are oxidized in the blood stream into the arsenoxide. Sixty per cent of arsphenamine is excreted in twenty-four hours. In neoarsphenamine the rate of excretion is much faster. The principle depots of deposit of the various compounds of this drug are the liver and spleen. The tissue penetrating ability of the trivalent arsenicals is not as great as the pentavalent arsenical known as tryparsamide. This drug constitutes our most valuable drug in the treatment of the various forms of cerebrospinal lues. The toxicity of the arsenicals is a known equation and must be reckoned with in any definite routine of treatment.

The iodides have no spirillicidal effect. Ninety-six per cent of iodine injected into the alimentary tract is eliminated as such through the kidney in 96 hours. This drug is of principal value in the treatment of latent syphilis as an aid in preparing a patient suffering with late syphilis, for the use of the arsenicals. The non-specific nature of the action of the iodides in the resolution of the lesions of all varieties of granulomatous tissue is its principle reason for being considered one of the drugs of the syphilotherapist.

Thus, we have defined or differentiated late syphilis from early syphilis. In addition to this, we have discussed the value of the four drugs that constitute our forte of therapeutic agents. Hence, we are now ready to establish certain end results which we hope to obtain by our treatment. There must be an early realization in the mind of the therapist of the difference between clinical, serological, and pathological latency. Biologic or pathologic cure is, at the outset, an impossibility particularly where the disease is of long standing and where gross destruction of specialized tissue has occurred. Serological negativeness as a response to treatment is also an improbable goal toward which we may direct our treatment. In many cases the blood serology becomes negative without treatment of any kind. It is, therefore, a questionable guide to treatment of latent syphilis. How, then, shall the physician formulate a program of treatment to pursue in late syphilis? This question can only be answered in terms of the individual patient. That type and amount of treatment is necessary and adequate which considers the location, extent, and character of the syphilitic lesion, the presence or absence of complicating disease, the age of the patient, and the duration in terms of years of the infection—and that type and

amount of treatment may be given to an individual patient which does no additional damage, which will provide prompt subjective and objective relief from lesions, and which will grant a reasonable

amount of assurance against progression or relapse of the disease. Clinical recovery, therefore, is the ultimate goal and only safeguard of modern treatment of latent lues.

#### 4. NEUROSYPHILIS

C. L. WILLIAMS, M.D.

Logansport

On this program, as in a case of syphilis, chronologically neurosyphilis comes last. Even though neurosyphilis comes last, it is correspondingly more difficult to treat.

Incidence: Mattauschek and Pilcz, examining the fate of 4,134 Austrian army officers infected with syphilis during the period of 1880 to 1900, found in 1912 that 10.7% of these cases had developed neurosyphilis.

The Cooperative Clinical Studies of Syphilis have considered 75,000 cases. Of that number, spinal punctures were done on 5,293 cases. Of these 5,293 cases, 53.4% had neurosyphilis in some form. This figure is quite high for, without doubt, there was some indication of neurosyphilis to prompt the study of the spinal fluid. The ratio of this number of cases of neurosyphilis to the original total of 75,000 would be 3.7%, which percentage would appear to be too low.

Many of the laity have gained the impression that the great majority of the patients in the state hospitals for mental diseases are there because of venereal diseases, particularly syphilis. There were 1,769 cases admitted to the five state hospitals of the state last year, of which 275 cases, or 15.54%, were due to syphilis of the central nervous system. At the close of the last fiscal year there were in these hospitals 7,959 cases, of which 990 cases, 12.43%, or approximately 1/8, were due to syphilis of the central nervous system.

From an economical standpoint, considering the per capita cost of the different hospitals, these 990 cases due to syphilis cost \$196,476.45 to care for them for a year.

Therefore, it would appear safe to assume that neurosyphilis develops in at least 10% of the cases infected with syphilis. Since this number are developing neurosyphilis, it is very important that each case of syphilis should have a spinal puncture for diagnosis. This should be done between the sixth and twelfth months of treatment, and preferably around the sixth. A case of syphilis, which during treatment develops a negative blood Wassermann, and later the blood Wassermann relapses to positive, should have a spinal puncture done at that time, to detect whether or not there is invasion of the central nervous system. O'Leary and others<sup>1</sup> have shown by their

studies that cases having had syphilis for four years or longer, who have been *adequately* treated and found to have a negative spinal fluid Wassermann, will in 99% of the cases maintain a negative spinal fluid, even though the blood test may be persistently positive. These same investigators have further shown that in cases starting treatment during early syphilis and not developing a negative blood Wassermann, 50% of the cases have been found to have neurosyphilis. The extreme difficulty of obtaining spinal fluid examinations is readily recognized; yet, regardless of this difficulty, every possible attempt should be made to have these cases receive complete spinal fluid examinations. This is the only manner in which these cases can be detected and treatment applied early. By applying the treatment early, O'Leary and others have shown that only 2.8% of the early cases show clinical progression despite treatment, while 7.9% of the cases of the latent syphilis show clinical progression. The foregoing is brought out in an attempt to impress the significance of doing complete spinal fluid examinations early and getting these cases under treatment.

#### TREATMENT

The best treatment and the best prevention of neurosyphilis is persistent, adequate, and intensive treatment started in the early stages of syphilis. Stokes and others<sup>2</sup> outlined the treatment of early syphilis. When one studies the courses outlined for early treatment, barring some sensitivity, they are comparatively easy to follow. This is usually due to the fact that the individual presenting himself for treatment is in good health aside from his chancre or his secondary manifestations. However, the treatment of neurosyphilis offers more difficulty in the treatment of the patient. This is due to the months and years that the human organism has harbored the *Treponema*, with its effects on the cardio-vascular and central nervous systems, as well as on the liver and other internal organs. Along with this must be considered the effect of the numerous other intercurrent infections, maladies and injuries which the individual has suffered. These have had their effects on the physical condition of the patients, so that they are

<sup>1</sup> O'Leary and others: *Venereal Disease Information*, issued by U. S. Pub. Health, 18:3—March, 1937.

<sup>2</sup> Stokes, J. H., et al.: Standard Treatment Procedure in Early Syphilis, *J.A.M.A.*, 102:16, p. 1267, Apr. 21, 1934.



not as good risks upon which to start treatment as one sees in the early cases of syphilis.

Before the treatment of neurosyphilis is instituted, the individual should be subjected to thorough, searching physical and neurological examinations to ascertain as near as possible the degree and type of involvement of the central nervous system, as well as the general condition of the patient. Great care and attention should be given to all of the positive findings elicited from these examinations, for they are a valuable aid in outlining the course of treatment for the individual. Reece and others<sup>3</sup>, and O'Leary<sup>4</sup> point out that the treatment of neurosyphilis cannot be standardized and that the treatment of the patient who has central nervous system syphilis must be individualized.

In early syphilis immediate intensive treatment is instituted to heal the chancre and render the patient non-infectious. This type of approach to the treatment of neurosyphilis is fraught with danger, due to the unfavorable reactions liable to occur, which may hinder treatment for a time. At one's disposal for the treatment of neurosyphilis are the courses of mercury, bismuth, arsphenamine, and tryparsamide, as well as iodides, the intraspinal treatments by the Swift-Ellis method, and the non-specific methods. The non-specific methods include malarial therapy, hyperpyrexia by the various physical agents, typhoid paratyphoid A and B vaccine intravenously, sodoku, and sulphur and oil intramuscular injections. Neurological, physical and spinal fluid examinations should be frequently done to check the effect of the treatment.

#### MODUS OPERANDI OF NON-SPECIFIC TREATMENT

The original hypothesis of the modus operandi of the treatment was that the high temperatures developed during the fever reaction were sufficiently high to have a destructive effect upon the *Treponema*. Subsequently, improvement was noted in cases which during treatment did not have a temperature above 101 degrees Fahrenheit, which obviously was too low to destroy the *Treponema*. Bruetsch<sup>5</sup> has shown from his histologic and supra-vital staining studies that there is, with malaria, a marked stimulation or activation of the cells of the reticulo-endothelial system. Further, that this stimulation is more marked with therapeutic malaria than with other infections such as erysipelas. Further, that this stimulation of the reticulo-endothelial system causes an increased phagocytosis by the histiocytes (macrophages and clasmotocytes). Bruetsch<sup>5</sup> points to the experimental work of Nye and Parker, assuming that,

in typhoid vaccine shock, a tissue reaction is caused, of the monocytic type, and infers that it is probably not so effective, as this type of reaction does not produce as much phagocytosis.

The fact that the *Treponema pallida* is killed by temperatures of 105.8 degrees Fahrenheit, maintained for two hours in vitro, has served as the basis for the development of treatment by hyperpyrexia induced by various physical means. Neymann<sup>6</sup> points out the various physiological responses of the human organism to artificial fever, which are mainly a concentration type of response, and mentions the fact that the meningeal permeability is increased during the first few weeks of treatment and later decreases, eventually reaching normal in the successfully treated cases. He then concludes that it is the fever itself that destroys the organisms.

#### APPRAISAL OF RESULTS

O'Leary and others<sup>1</sup> in their appraisal of treatment have shown that 83.6% of the milder cases of neurosyphilis (Group I) showed improvement, while only 44.9% of the more severe cases (Group IV) showed improvement, and in this latter group the response was slower to treatment. A survey of the literature shows that after malarial therapy there is anywhere from 8% to 30% of the cases that show sufficient remission to assume their former occupations and places in society. About 30% to 50% show remissions of the type that they may live under a markedly restricted environment, or in an institution. Around 20% or more died from their paresis, or other intercurrent infection within one or two years after diagnosis. Parnitzke<sup>7</sup> found that among 373 patients studied before the use of malarial treatment, 65% died within one year of admission, whereas among 649 patients studied after instituting malarial treatment, only 15% died within one year after admission. Nicol & Hutton<sup>8</sup> point out one of the results of malarial therapy has been the silting up of mental hospitals with a population of semi-arrested cases in which life is prolonged, which creates a social and economic problem. In looking over our statistics for the years 1936 and 1937, it is noted that our improvements are 30 to 33%, the unimproved 30 to 40%, and the deaths range from 28 to 38%. It is to be pointed out here that not all the improvements are furloughed, but only about 12% are furloughed and discharged as improved from the institution.

#### DISCUSSION

S. H. KAMMAN, M. D. (Seymour): I would like to know the effect of typhoid fever on neurosyphilis.

<sup>3</sup> Reece and others, Year Book of Neur. Psych. & Endoch., 1934, p. 1245.

<sup>4</sup> O'Leary: Neurosyphilis, J.A.M.A., 109:15, Oct. 9, 1937, p. 1163.

<sup>5</sup> Bruetsch: Activation of the Mesenchyme with Therapeutic Malaria. Jour. Nerv. & Ment. Dis., 76:3—Sept., 1932.

<sup>6</sup> Neymann: Artificial Fever in Syphilis. Am. Jour. Psych., 93:3—Nov., 1936.

<sup>7</sup> Parnitzke, K. H.: Ztschr. f. d. ges. Neurol. u. Psychiat. 159:722-745, 1937.

<sup>8</sup> Nicol, W. D. & Hutton, E. L.: Proc. Roy. Soc. Med. 30:628-631, Mar., 1937.

DR. WILLIAMS: I don't know that I have ever had experience with the effect of typhoid fever. The only experience I have had is with typhoid vaccine and, as I pointed out, the vaccine in its non-specific shock gives a monocytic type of reaction. It probably is not as effective as the malarial reaction as it does not produce as much phagocytosis. I don't recall that I have ever seen a case of paresis or neurosyphilis that suffered with typhoid fever.

ERWIN BLACKBURN, M. D. (South Bend): What is the procedure in the treatment of cerebrospinal syphilis when the gold curve is tabetic?

DR. WILLIAMS: When the spinal gold curve is tabetic? Of course, after you have studied the case, know the physical condition, you have the treatment as I outlined with the various types of drugs. After carrying on the treatment with the pentavalent arsenical, which is tryparsamide, and bismuth, if you get no results from that you can go on to malaria. Malaria has given some results, and also the intraspinal treatment by the Swift-Ellis method has given results. That treatment is one which causes considerable distress to the patient but it is one that still has a lot of value in its procedure.

There is one thing that you will usually find in the malarial treatment of tabes, and that is the augmenting of the pain of the crisis and lightening pains. It is usually a rather distressing procedure for one of these cases to take malarial treatment, but in a number of cases they do show improvement. Does that answer the question?

DR. BLACKBURN: Not quite. When you don't make a clinical diagnosis, but there is a latent syphilis with a tabetic curve 4 plus, cell increase, and globulin 2 plus, and the patient never had any treatment, what would be your procedure?

DR. WILLIAMS: It would be well to start such a case with mercury and iodides or bismuth, and follow this course, without a rest period, with tryparsamide. One could use these courses alter-

nately, and it would be well to include, later, a course of arsphenamine.

After a year to one and a half years, if favorable results were not obtained in either the spinal fluid or the clinical picture, it would be well to give a course of treatment by the intraspinal method of Swift-Ellis. If the case then did not show improvement, it would be well to go to malaria or one of the non-specific treatments.

The reason for the first course of either bismuth or mercury with iodides is to prepare the patient for further intensive treatment. Since this case has possibly suffered syphilis for several months or years, you can not start in immediately with a heavy dosage of arsphenamine because you are going to have some rather unpleasant results.

JAMES E. ENGELER, M. D. (Indianapolis): I would like to ask Dr. Williams how early he has found a positive spinal fluid in the course of a disease of syphilis?

DR. WILLIAMS: My experience is mostly with the late cases, but you can find the spinal fluid positive even in the secondary stage. I brought out in my paper, that cases which have a negative Wassermann during treatment and later relapse to positive should have a spinal puncture at that time to detect whether or not there is invasion of the central nervous system. I can't tell you just exactly how early the spinal fluid will become positive but it is liable to, even as early as the secondary stage.

DR. ENGELER: I am acquainted with a case that has a seronegative positive-darkfield. At six months, the spinal fluid examination was done and found to be 4 plus. There was no change in the gold curve but 1 plus globulin. We are getting the cell count now.

DR. WILLIAMS: That means that your case has shown a positive spinal fluid some time in the first six months, which bears out the statement I made that spinal fluid examinations should be done around the sixth month.

#### ABSTRACT: CONCENTRATED LIVER EXTRACTS MAINTAIN NORMAL STATE OF BLOOD IN PERNICIOUS ANEMIA

The intramuscular injection of concentrated liver extracts to patients with pernicious anemia maintains a normal state of the blood and prevents damage to the nervous system, William P. Murphy, M.D., and Isabel Howard, Boston, say in *The Journal of the American Medical Association* for Jan. 14.

They observed 176 such patients from six months to six and a half years. 133 of whom received, intramuscularly, 3 cc. (0.1 ounce) of concentrated extract at average intervals of 3.7 weeks. This maintained their red blood cell counts at a level of about 5,000,000 cells per cubic millimeter, the optimal count.

Thirty-one of the group received 0.03 ounce of a more highly concentrated liver extract at average intervals of 3.6 weeks in order to maintain their red cell counts at a level of about 5,000,000 cells per cubic millimeter. This shows that the two extracts are equally able to control the red cell counts.

The amount of anti-pernicious anemia substance, liver extract, necessary for this maintenance is not influenced by the age or sex of the patient.

The remaining twelve patients had complications (arthritis, sluggish thyroids or overfunction of the pituitary gland) known definitely to influence the requirement of anti-pernicious anemia substance or were not regular in their treatment.

Except for complications which have occurred in association with the pernicious anemia, the patients have remained in excellent health and have usually been able to carry on their work, and progress of nervous disturbances has been arrested. In no case have nervous disturbances developed during adequate treatment.

Each patient presents an individual problem in treatment. The amount of extract necessary is determined on the basis of frequent red blood cell counts and the patient's physical condition, with special attention being paid to the nervous disturbances, if present.



## THE SERODIAGNOSIS OF SYPHILIS

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In 1934 the U. S. Public Health Service in co-operation with the Society of Clinical Pathologists undertook the task of evaluating the serologic tests for syphilis in use in the United States. In 1936, 1937, and 1938 sero-diagnostic evaluation studies as performed by state laboratories, municipal laboratories and large private laboratories were conducted. These surveys have been a valuable contribution to the advancement of serologic methods. As the result of these studies, it has been shown that while several reliable and up-to-date tests had been available for some time, many serologists are still employing insensitive and antiquated technics. It has also been brought out that many of the technicians performing this important work lack the special training necessary in this highly specialized branch of laboratory procedure. An analysis of the three evaluation surveys clearly indicates that the tests available are, in general, better than the skill of the technicians who perform them.

Although the national surveys have shown that considerable effort and time are involved in carrying out these studies, it seems desirable, if not essential, that similar surveys be conducted in every state by which all laboratories performing serologic tests be evaluated once a year. Certainly no reputable laboratory would have any objections to these studies, or would deliberately continue to perform substandard work once it has been shown that either the tests or the technicians employed are not providing physicians with reliable results. If syphilis is to be eradicated, it must necessarily be through the combined efforts of the physician and the laboratory.

As is well known, the original test for syphilis was the complement fixation technic devised by Wassermann. But what is not so generally understood is that the Wassermann technic as originally proposed by Wassermann is a non-existent test in the United States. In its place scores of modifications are being used, some of which are decidedly better technics, while many of them are worthless. In a recent survey one laboratory using a Wassermann technic tested 198 sera from known syphilitic patients. The sensitivity rating given this technic was 34.8 per cent, which means that it had failed to detect 129 out of 198 syphilitic persons. Moreover, the specificity rating was 92.0 per cent, meaning that out of 100 sera from normal individuals 8 of these gave false positive reactions with this technic. Contrary to claims made by certain advertised tests regarding their simplicity and reliability which enable inexperienced persons to perform these tests, present day reliable sero-

logic technics have not yet been reduced to the mere addition of "a drop of this" and "a drop of that," and it must be realized that there are innumerable factors which may and do play a part in determining the reliability of the results.

Within the past fifteen years a number of flocculation tests have been developed: the Kahn test, the Kline test, the Hinton test, and the Eagle test. More recently this writer has developed a flocculation test. During the past three years nearly 200,000 specimens have been tested with this technic in parallel with the Kline Diagnostic, the Kahn (modified), and the Moon-Wassermann technic. The results obtained have demonstrated that this technic possesses equal specificity and greater sensitivity especially in early, latent and neurosyphilis, and in patients under anti-syphilitic treatment. As a further check on the reliability of the antigen used in this test, an unofficial study was made with specimens furnished by the U. S. Public Health Service for the 1936-1937 survey. This study proved in a convincing manner its potential value. The test was then officially entered in the 1938 evaluation survey. The rating received was 86.7 per cent sensitivity and 100 per cent specificity. A detailed analysis of the results obtained with this technic and with the tests of the controlling laboratories participating in the 1938 survey are presented in the accompanying tables.

All these tests, including the Wassermann, are based on the same fundamental principle—the interaction of normal tissue lipoids with the reagin present in the serum of syphilitic individuals. These tests are unlike only in the adjustment of the variables which determine the sensitivity and specificity of the reaction. In spite of their relative simplicity, the limitations of any one of them, together with the personal factor, greatly influences the results so that none of them is suitable for performance by technicians or physicians without considerable training under the supervision of a competent instructor.

It is not necessary for the physician to know the technical details of these tests. He should, however, be familiar with the efficiency of the particular test or tests *as employed* by the laboratory available to him, and with the interpretation of the terms used in reporting serologic tests.

To be of greatest value, a serologic test must possess maximum specificity and maximum sensitivity. Specificity refers to the ability of the test to give no false positive reactions with the sera of non-syphilitic persons. In the opinion of the committee for the evaluation of serologic tests, the frequency of false positives should be less than 1 per cent. Sensitivity means the ability of the test to detect the syphilitic reagin in the sera of syphi-

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litic individuals. In a group of untreated and treated syphilitic patients, 70 to 80 per cent would be regarded as satisfactory. Specificity and sensitivity may be compared to the two pans of a balance. When they are at rest the two are at the desired level; when, however, the left pan is made to go up, the right one invariably goes down, and vice-versa. Similarly, when the antigen is properly adjusted, the specificity and sensitivity are at their maximum; when, however, the specificity is increased the sensitivity is automatically decreased, and vice-versa.

The tests in general use which are most satisfactory at the present time are: the Kline Diagnostic, the Kahn Standard, the Kolmer-Wassermann, the Eagle flocculation, the Eagle-Wassermann, and the Hinton. While any one of these tests can be used with safety by experienced technicians, it must always be borne in mind that a perfect test does not exist, and that any technic is limited in actual performance by the ability of the individual who performs the test.

The mere fact that a given laboratory employs a well known technic does not necessarily indicate that the results obtained will be reliable. The variations which are possible in a given group of laboratories with any of these technics are actually so extreme as to be despairing to the originator of the test. In the second evaluation survey, of 14 laboratories performing the well known Kolmer-Wassermann technic, there was a variation in specificity from 97 to 100 per cent, and in sensitivity from 31.8 to 79.9 per cent! The Kahn Standard test varied in specificity from 95.9 per cent to 100 per cent, and in sensitivity from 49.2 to 87.2 per cent. The Kline Diagnostic test varied in specificity from 95.1 to 99.0 per cent, and in sensitivity from 69.9 to 95.6 per cent.

The phrase "Exclusion test for syphilis" so often mentioned in recent years is not only misleading but also actually not based on fact. The Kahn "presumptive" and the Kline "exclusion" are the two tests which are used presumably in the sense that if the reaction is negative syphilis is excluded. In the original survey (1934-1935) the Kahn "presumptive" failed to produce positive reactions with 13.4 per cent of the sera from known syphilitics; in other words, its sensitivity was only 86.6 per cent. Not only did it fail to exclude syphilis but it also gave 3.3 per cent of false positives with the sera of non-syphilitics. The Kline "exclusion" test failed to react with 14.6 per cent of the sera from known syphilitics, and it too gave 0.7 per cent of false positive reactions with normal sera. It can be said emphatically that there is no test at the present time which will exclude syphilis. Furthermore, repeated negative reactions, by one or even by multiple tests, regardless of the ability of the technician, *never absolutely* exclude syphilis. Another common fallacy is that present day tests are too sensitive and that over-treatment will be the result. As has been stated, serologic tests are

not sensitive enough. Moreover, *serologic tests are not a safe guide in the treatment of syphilis*. Syphilis requires the most intensive and continuous treatment possible, whether the reaction be one plus or four plus. Furthermore, a negative serologic reaction does not necessarily mean the absence of *Treponema pallidum* from the host; it simply means one of two things: first, that the test employed was too insensitive to detect the reagin present in the serum; or, second, that the reagin was present in quantities too small to be detected even with a sensitive test. That this interpretation is correct can be proved by well known cases of patients who, after having been rendered serologically negative for months, or even years, later develop clinical manifestations of the disease. There is no sound basis for the belief that the strength or weakness of the reaction of the serum of a syphilitic individual has a definite pathologic, therapeutic, or prognostic significance.

The selection of technics whether Wassermann or flocculation has, heretofore, been largely a matter of guess and of personal choice. Since most of the better serologic technics have already been evaluated, the selection of tests can now be based on their actual performance, and not upon extravagant claims made by the originators or upon inaccurate statistics gathered by individuals and recorded in the literature. Some serologists prefer the "tube" flocculation tests such as the Kahn, the Eagle or the Hinton; others prefer the "slide" test such as the Kline. There are some who experience difficulty in reading the macroscopic tests and choose the tests which are read with the aid of the microscope. There are, however, certain tests of equal reliability which are more adaptable to certain types of laboratories where a particular routine is followed in the interest of efficiency and economy. For instance, the stability of the Kline antigen suspension (usable for about 24 hours) renders it more suitable for laboratories where tests are conducted throughout the day, than the unstable Kahn antigen suspension (good for not over one half an hour). The use of two tests, both of which require long periods of incubation before the reaction can be read, such as the Kolmer-Wassermann and the Hinton test, would seem to offer no particular advantage if used in conjunction. In laboratories performing multiple tests, economy is an important item and the selection of tests is made with this point in view. However, economy should be the last consideration in the selection of tests. Large laboratories performing hundreds of tests daily would be unwise to employ tests of the type of the 5-tube Kolmer-Wassermann or the 3-tube Kahn test. But whatever the combination of tests selected may be, they should be chosen according to (1) specificity and sensitivity, (2) ease of preparing the reagents, (3) ease of reading the results, (4) stability of the antigen extract and antigen suspension, and (5) economy.

It would seem that the "ideal" set-up is one em-



TABLE I

Case No.	Eagle C. F.	Eagle M. F.	Hinton	Kahn S.	Kahn P.	Kline D.	Kline E.	Kolmer C. F.	Mazzini
<b>Latent Syphilis</b>									
59 Treated	—	D	P	—	4+	D	3+	.....	4+
68 Treated	—	D	—	—	3+	D	4+	.....	4+
69 Untreated	—	—	—	D	4+	D	3+	.....	4+
75 Treated	—	D	D	—	—	—	D	.....	3+
228 Inadequate	—	P	P	2+	4+	3+	4+	1.....	4+
242 Treated	P	P	—	—	4+	D	4+	321....	4+
243 Treated	D	D	P	—	—	—	D	21.....	4+
245 Treated	P	P	P	—	—	—	D	321....	4+
247 Treated	P	D	P	—	3+	D	4+	4441..	NT
256 Treated	P	—	P	—	3+	—	2+	.....	3+
286 Inadequate	D	—	P	—	—	—	D	.....	3+
290 Treated	—	—	P	—	D	—	2+	.....	2+
323 Treated	P	NT	P	—	—	—	2+	.....	3+
324 Treated	P	NT	P	—	—	2+	4+	42.....	4+
<b>Neurosyphilis</b>									
34 Untreated	—	P	P	NT	NT	3+	4+	.....	4+
39 Not given	—	P	P	4+	4+	4+	4+	31.....	4+
67 Treated	—	—	—	—	—	—	D	.....	4+
70 Untreated	—	P	P	4+	4+	3+	4+	44441	4+
86 Treated	P	—	—	—	—	D	3+	2.....	4+
90 Not given	P	—	P	—	—	—	2+	.....	3+
120 Treated	—	P	P	—	4+	D	4+	1.....	4+
167 Untreated	P	—	P	—	—	4+	4+	1.....	4+
226 Treated	—	—	P	D	4+	D	4+	.....	4+
253 Treated	—	—	P	—	D	—	2+	.....	3+
310 Treated	P	P	P	—	3+	2+	4+	321....	4+
<b>Tertiary Syphilis</b>									
11 Untreated	—	P	P	3+	4+	4+	4+	1.....	4+
13 Treated	—	P	P	4+	4+	4+	4+	4421..	4+
423 Inadequate	—	P	P	2+	4+	3+	4+	21.....	4+
8 Untreated	P	P	—	4+	4+	4+	4+	42.....	4+
<b>Secondary Syphilis</b>									
307 Treated	—	—	P	—	3+	NT	NT	.....	4+
308 Treated	—	—	P	—	—	—	D	.....	2+
<b>Congenital Syphilis</b>									
294 Treated	—	P	P	D	4+	D	4+	1.....	4+
<b>Primary Syphilis</b>									
231 Treated	D	—	P	—	—	—	2+	.....	D
277 Treated	—	—	—	—	—	—	—	432....	—
289 Treated	—	—	P	—	—	—	D	.....	D
300 Treated	D	P	P	—	—	—	—	.....	2+
311 Treated	—	—	P	—	—	—	D	.....	3+
316 Treated	D	P	P	—	—	—	2+	.....	3+

P: Positive —: Negative D: Doubtful NT: No Test

M. F.: Microflocculation C. F.: Complement Fixation S.: Standard P.: Presumptive D.: Diagnostic E.: Exclusion

ploying two flocculation tests, one of moderate sensitivity and the other of high sensitivity, and a sensitive Wassermann test. A second choice would be one using two flocculation tests as a "screen" test. By "screen" test is meant the elimination of all sera showing a negative reaction in the preliminary test. Those sera producing partial or com-

plete flocculation with either test are further tested with a sensitive Wassermann technic. The use of two flocculation tests for "screening" purposes undoubtedly increases the reliability of the results, and also serves as a check against laboratory errors.

The interpretation of serologic results presents

one of the most troublesome problems in serology. It is admitted that there is no satisfactory method of reporting serologic reactions. The two methods employed at the present time have their advantages and disadvantages, but both are confusing to the physician who is called upon to interpret the results. The most widely used method is probably that one which employs the (+) marks, e.g., (+) (++), (+++), and (++++). The main objection to this method is that it erroneously infers that quantitation is involved, when in reality it is simply an arbitrary denotation of partial fixation of complement resulting in varying degrees of hemolysis, or incomplete aggregation of antigen particles as the case may be. The other method which seems to be gaining favor among leading serologists and which has been recommended for general adoption by the Committee for the Evaluation of Serodiagnostic Tests, is that of reporting results simply as negative, doubtful, and positive. The chief objection to this method is that the doubtful result which corresponds to one of three of the plus marks (+), (++), or (+++), does not mention how doubtful the reaction was. A "doubtful" report under this system may be one nearly negative (+) or one bordering on the positive side (+++) or one in between (++).

With our present knowledge of the serology of syphilis there should be little chance of error in interpreting the significance of a positive reaction or of a negative one, but when the reaction is incomplete its actual meaning is misunderstood and often results in misinterpretation. In the absence of definite history or physical evidence of syphilis, a *single positive* test, regardless of technic or technician, *should not* be interpreted as evidence of syphilitic infection. The examination should be repeated by two *equally reliable* laboratories, preferably using multiple tests, to rule out technical and laboratory errors and biologic false positives. A *single partial positive* reaction may mean syphilitic infection, but it *should not* be interpreted without clinical data, because often it is due to technical error. The test should be repeated three or four times at weekly intervals and a final evaluation of the results made. *Repeated partial positives* have a greater significance and *should*

*not be disregarded* until a thorough study of the patient has been made. In interpreting partial positive results, one must also take into consideration the sensitivity of the test employed. For instance, a (+) or (++) reaction with an insensitive technic will usually produce a strong reaction (++++) or (++++) with a sensitive technic. There is no valid reason for excluding any persons engaged in certain trades, whose blood shows a positive reaction, from carrying out their daily duties, provided the individual after a *complete physical examination* is found to be not infectious. Serologic reactions *do not*, at any time, indicate that a person whose serum was tested and found positive is infectious.

Occasionally a laboratory may render a false negative or a false positive report due to: (1) laboratory error, (2) technical error, (3) biologic error, or (4) clerical error. By laboratory error is meant the mechanical error which includes: switching specimens, mislabeling specimens, pipetting a serum into the wrong tube, etc. A technical error is one due to the limitations of the test itself or to the incorrect preparation and adjustment of the reagents. A biologic error is a positive reaction obtained in conditions other than syphilis. There are very few diseases which will give false positive reactions with all tests. Multiple tests are of great value in ruling out these biologic false positives. The clerical error is self explanatory.

Despite every precaution to prevent these errors, there is always the possibility that they may occur so long as human hands are used in laboratory operations. It is obvious that these errors are possible in *any laboratory* and claims of infallibility usually emanate from unreliable laboratories. However, if the physician remembers that the laboratory *does not and can not* make a diagnosis, the seriousness of these sometimes unavoidable errors is minimized, but through hasty and erroneous interpretation these errors may become very serious indeed.

There may still be some serologists who are of the opinion that this test or that test is the best and the only test, but if there are, they certainly are in error. There is not a single technic which embodies every requirement which the "best" and the "only" test should possess. Inspection of table 1 which has been taken from the official 1938 evaluation survey will show that *equally reliable and sensitive* tests *may and do*, with frequent regularity, fail completely to produce a positive reaction with sera from known syphilitic individuals, while another technic gives a strong positive reaction with the identical sera. Table 1 presents the detailed analysis of every case of syphilis (out of 207) on which one or more of the tests participating failed to produce a positive reaction in various stages of syphilis. These tests were performed by the controlling laboratories (the laboratories of the originators of each of the tests listed).

The efficiency of serodiagnostic tests in the vari-

TABLE II  
OFFICIAL 1938 SENSITIVITY RATINGS OF LEADING TESTS

Technics	Specimens Examined	Doubtful Reports	Percentage of Doubtful Reports	Positive Reports	Percentage of Positive Reports	Number of Specimens Not Tested
Eagle C. F. ....	205	10	4.9	148	72.2	2
Eagle M. F. ....	200	5	2.5	155	77.5	7
Hinton .....	199	3	1.5	167	83.9	8
Kahn S. ....	200	9	4.5	141	70.5	7
Kahn P. ....	200	2	1.0	158	79.0	7
Kline D. ....	203	13	6.4	149	73.4	4
Kline E. ....	203	11	5.4	169	83.3	4
Kolmer C. F. ....	207	1	0.5	162	78.3	0
Mazzini .....	204	6	2.9	177	86.8	3



ous stages of syphilis may be briefly summarized as follows: In primary syphilis the present day serologic tests are unfortunately not more than 40 to 50 per cent efficient in the first week after the appearance of the chancre. However, the dark-field examination which constitutes the most reliable procedure in early primary syphilis should be used routinely in every suspected lesion. No one lacking extensive practical experience should be permitted to make this type of examination. A *single negative*, or even repeated negative dark fields *do not* exclude syphilis. A serologic follow-up for three months should be instituted after at least three consecutive dark-field examinations have been negative. In *untreated* secondary syphilis, the sensitivity of serologic tests is highest, probably 100 per cent; therefore, a negative report from a reliable laboratory *may* practically be interpreted as ruling out syphilis. Nevertheless, it should always be remembered that a negative result *never absolutely* excludes syphilis, regardless of technic or technician. In latent syphilis an efficient test can be of great assistance to the physician in establishing the correct diagnosis because "at any given moment at least one-third of all patients with syphilitic infection are in the stage of latency" (Moore). In late syphilis of the tertiary type the agreement by reliable tests is

surprisingly high and uniform; and while in neurosyphilis the agreement is not quite as striking, yet a large per cent of them are detected by the better technics. In prenatal and congenital syphilis efficient tests are of particular value, for in the words of Moore, "in many pregnant women there is complete absence of clinical evidence of infection."

### CONCLUSIONS

In conclusion it should be said:

(1) That present day serologic tests are far more efficient both from the standpoint of sensitivity and specificity than those which were in use fifteen years ago.

(2) That serodiagnostic tests for syphilis are of great value to the physician as an *aid* in the diagnosis of syphilis, but that the laboratory *never* can make a diagnosis for him.

(3) That while close cooperation between the serologist and the physician is very desirable, the former should strictly confine himself to reporting the results without expressing an opinion from the findings as to the probable presence or absence of infection.

(4) That if the present campaign to eradicate syphilis is to prove successful, the physician's "low index of suspicion" (Stokes) of the actual existence of syphilis in his own practice *must be raised*.

## THE TREATMENT AND MANAGEMENT OF GONORRHEA

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As many books have been written on the subject, one can say but little in a short article on the treatment and management of gonorrhea. Nevertheless, I wish to mention a few points that are very essential to its successful control and cure. With all the publicity about syphilis, it is hard to understand why gonorrhea does not receive greater attention. As physicians, we know that gonorrhea is far more prevalent and causes greater damage than syphilis and for sheer misery is unparalleled in our category of human diseases. We know that a simple federal law making circumcision compulsory in the newborn male would cut the incidence of syphilis probably 50% in a generation and save untold millions in taxes. Physicians have advocated this law for many years but physicians are poor politicians.

Physicians must shoulder at least a fair portion of the blame for the lack of control and management of gonorrhea. How many of us really give as much attention to its management and treatment as we do to a pneumonia patient or a diabetic? If we err in one of these, only the patient is involved. If we err in the management of gonorrhea, a whole family or neighborhood may be involved.

### TREATMENT

There are two main requisites in the successful treatment of gonorrhea, both in the male and female: (1) diagnosis, and (2) gentleness in treatment. By diagnosis, I mean not necessarily the finding of the Neisserian diplococcus. I mean by careful supervision of the patient to be able to diagnose, if possible, all the complications that may ensue, thus trying to prevent their inception or at least to shorten their duration and lessen their severity. By gentleness, I mean just that. How often have we seen complications follow rough handling of an urethra or cervix, strong injections, or the forceful passage of instruments. Did you ever, while massaging a prostate, give a few hard, forceful, strokes in order to answer an insistent telephone and then wonder the next day why John Jones insulted your professional dignity in developing an epididymitis? Would a gentle massage have caused it?

### CONTROL OF PATIENT IN ACUTE GONORRHEA

We are firmly convinced that a few moments heart-to-heart talk with the patient about his or her infection, explaining its dangers, the hygiene to be followed and relations to society in general

saves months of treatment and many complications. It is highly essential that the individual knows it is his or her body, and not the doctor, that conquers the disease. We can only guide them over the rough spots and ease them through the stormy periods. Once they thoroughly understand that by taking care of their bodies and never breaking training rules, the battle is half won. If the patient is accustomed to ordinary exercise or work, he should continue it. During complications, rest may be essential.

#### DRUGS

The market is flooded with drugs which, according to the manufacturers, will cure any and all cases of gonorrhea. To listen to their stories would almost convince one that all we should do is order a syringe or douche bag, prescribe the drug and then sit by to listen to the dying wails of the gonococcus. I think any mild silver salt is an excellent gonococcide and do not believe one excels the other. The physician, however, must know his drug and know how to use it and then he must stick to it. One drug which is now shining strongly in the field of gonorrhea is sulfanilamide in its various forms. This is an excellent addition to our armamentarium but it is not a specific for gonorrhea and the patient taking it should be under daily supervision. Many disastrous results have followed its careless use. The physician should know well its action before prescribing it. It has an especial field in the complications of gonorrhea in the female that heretofore only surgery could touch. Other camp followers of the gonococcus, such as the colon bacillus, may be combated with mandelic acid and the staphylococcus does not withstand well small doses of nearsphenamine. Many other drugs are useful but the above deserve especial mention.

**Urethral Injections**—These are best done by the physician but if, for some reason, this cannot be done, the patient should be most carefully coached in the procedure. Ten drops in the anterior urethra does far more good than 10 cc. of injection. The average should be around 2 to 4 cc.

**Irrigations**—These should always be given by the physician in the male. The female should be carefully instructed. The container should never be over two feet above the outlet in either sex. The vaginal douche tip should have an opening in its extreme end.

**Prostatic Massage**—Gentle prostatic massage may be started in the third or fourth week in the absence of urethral discharge or acute cloudy urines. The massaging finger should always be straight (never flexed) and the stroke should be downward and inward at the same time. The vesicles should be treated at the same time as they are always infected with the prostate.

**Vaccines**—These may or may not be used at the discretion of the doctor. Great care should be

taken in increasing the dose rapidly as the patient's resistance may be broken and complications ensue. Vaccines are a distinct help in provocative tests.

**Diathermy and Hyperpyrexia**—Diathermy is a great adjunct in the treatment of gonorrheal arthritis and it should be used at least twice daily. Extreme caution must be exercised in its use in an acute epididymitis or salpingitis. The infection may become fulminating in 24 to 48 hours and immediate surgery may be necessary. Hyperpyrexia is excellent but the cost is prohibitive and the mortality is around 1% which is too high for any gonorrheal therapy.

**Instrumentation**—No instrumentation of the urethra (male) should be done under four weeks and then only in the absence of all demonstrable gonococci. The urines should all be clear and instrumentation at first in the anterior urethra only. It is unnecessary to add that great gentleness should always be exercised. A few drops of 5% silver nucleinate instilled into the anterior urethra before passage of a sound is a good prophylactic measure.

#### CHRONIC GONORRHEA

In the female this requires eternal vigilance as the proof of a cure is almost impossible. Many prominent gynecologists doubt if we can ever tell when a woman is well. Here, I believe sulfanilamide is going to be our sheet anchor. A few surgeons still do salpingectomies and then turn the female out into society with a cervix full of gonococci. Coring of the cervix at the time with diathermy will often sterilize the infection in the cervical canal. In the male, patience on the part of the physician and more patience on the part of the infected person will finally eradicate the gonococcus. Above all things, employ gentleness in the treatment. In stubborn cases it may be necessary to obtain high dilatation of the urethral canal to insure free drainage of the vesicles, prostate and urethral glands. In some cases it may be necessary to do vasopuncture for injection of the seminal vesicles or dilatation of the vesicular ducts per urethral instrumentation. At times incision of prostatic ducts that drain poorly through a cystourethroscope will greatly facilitate drainage. Sclerosing injections of the infected prostate have been as yet too little used to give definite data as to end results. Let me reiterate: gentleness in treatment, mild solutions of antigonococccides, and our results will be better. Teach the patient as you progress with his case both as to inspection of urine and study of his slides under the microscope. You will be agreeably surprised how closely male patients will cooperate when they know the end to which you are striving, namely, the elimination of all cocci and pus cells from the urinary tract. Only by the most painstaking and sincere effort both on the part of the physician and the patient can the disease be eradicated.



## PROOF OF CURE

Unfortunately, we cannot be 100% sure of a cure in the female. In the male, repeated negative urines and slides from the prostate, vesicles, and urethra even after provocative tests, and then

three months' rest without recurrence of a discharge are good evidences that he is well.

In closing, I wish to stress the importance of diagnosis and gentleness in treatment.

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## RECENT ADVANCES IN MEDICINE THAT ARE OF SPECIAL SIGNIFICANCE IN PEDIATRICS\*

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An outstanding advance in medicine is without question the use of sulfanilamide as an antiseptic in combating bacterial infections. There can be no doubt that sulfanilamide is the greatest addition to our armamentarium of drugs since the introduction of arsphenamine. Its usefulness is manifold. In vitro experiments and clinical experience have amply proved its usefulness in hemolytic streptococcal infection. In pediatric practice it has proved useful in preventing the so-called septic complications of scarlet fever although it does not neutralize the effects of the soluble scarlet fever toxin. In erysipelas it has been successfully used in place of immune serum, blood transfusion or roentgenotherapy. In the hemolytic streptococcal infections of the throat, mastoid cells, meninges, peritoneum and blood stream the effects of this drug have been most striking. Before the advent of sulfanilamide, streptococcal meningitis was almost always fatal but with the use of sulfanilamide recovery is common. Even if it acted only on the hemolytic streptococcus, sulfanilamide would be an outstanding drug, but it is useful also in the treatment of other streptococcal infections with the exception of those caused by the *Streptococcus faecalis*. Sterilization of the blood stream with sulfanilamide has repeatedly been reported in cases of subacute bacterial endocarditis even if cures have been few and far between.

Almost as striking as its effect in hemolytic streptococcal infections has been its effect in meningococcal infections. Used at first in addition to meningococcal antiserum, it was later found just about as efficient when used without the serum. The permeability of the meninges is such that the drug is present in the spinal fluid in exactly the same concentration as it is in the blood. It is just as effective when administered by mouth as it is when administered intrathecally; this simplifies the treatment greatly.

It also is useful in infections caused by the closely related *Neisseria gonorrhoeae*. It has made treatment rapidly successful in one of the most widespread of diseases, the treatment of which has

been very unsatisfactory up to the present. Its successful use in gonorrheal ophthalmia of the newborn and of vulvovaginitis of girl babies has been a great step in advance.

Successful results have also been reported in cases of gas gangrene and undulant fever.

My particular interest in sulfanilamide has been its effective use as a urinary antiseptic. Taken easily by children in doses only about two-thirds as large as those necessary for streptococcal infections, namely, 10 grains (0.65 gm.) a day for each 20 pounds of body weight, it has a very effective bactericidal action on the whole group of gram-negative bacilli (*Escherichia coli*, *Aerobacter aerogenes*, *Proteus vulgaris*, *Pseudomonas salmonella*) as well as on the coccal group of organisms. Its claim to the title of the best urinary antiseptic, when considered from all points of view, is spoiled by its complete ineffectiveness in infections with the *Streptococcus faecalis*. It represents a great advance in therapy because of its value in the acute stage of the pyelitis, in conjunction with alkalinization, because of its effectiveness in the alkaline cystitis and pyelitis caused by the *Proteus ammoniae*, but particularly because of its effect in cases in which the concentration of urea in the blood is greater than 50 mg. per 100 cc. No other drug has ever proved effective in this last group of conditions.

It is well to remember that the drug does have definite toxic effects and its administration must be carefully controlled. By the side of sulfanilamide as a urinary antiseptic must be placed mandelic acid, as these two drugs form a team that has placed the treatment of urinary infections on an entirely new basis. Mandelic acid is somewhat more difficult to administer because of its disagreeable taste. It develops its bactericidal action only in a definitely acid urine, that is, in a urine that has a pH of 5.5 or less. Sterilization of the urine in twenty-four hours is not uncommon when the concentration of the drug in the urine is more than 0.5 per cent and when the pH of the urine is less than 5.5. If nausea occurs, the drug can be administered in suppositories. It acts successfully in infections with the *Streptococcus faecalis* but fails in infections caused by the *Proteus ammoniae* and in infections that are associated with injured kidneys.

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### THE THYMUS PROBLEM

Symposiums on the thymus at the meetings of the American Academy of Pediatrics and at a joint meeting of the Sections on Pediatrics and Radiology of the American Medical Association again brought this subject actively before the physicians of the country.

This subject is of medicolegal interest to physicians, because of the accepted belief by many that an enlarged thymus is frequently the cause of sudden death during or shortly following an operation, and that preliminary roentgenotherapy applied to the thymus would have prevented such death. At both meetings it was the consensus that there was no evidence that sudden death is related to the presence of an enlarged thymus or that previous roentgenotherapy applied to the gland would have had any effect in preventing sudden death. It was further agreed that the thymus may occasionally cause symptoms of respiratory obstruction but that in the words of Chairman Mitchell, it is "darn rare."

The report of the removal of the tonsils of 4,214 children, with only one death in a case of severe aerodynia, indicates what can be done in a large group of cases when the necessary preoperative precautions are taken. All of the children were subjected to a careful physical examination, an examination of blood and urine, and a roentgenographic examination of the thorax just before operation but preoperative roentgenotherapy of the thymus was not used in a single case.

The work of Rowntree and his associates on rats did not indicate that excessive administration of thymus extract brought on a tendency to sudden death in the animals even after its use had been continued through fifteen generations.

### DIPHENYL HYDANTOINATE

The control of convulsions is one of the difficult problems that faces the physician in general practice. The acute convulsion at the onset of a disease is usually not difficult to control but the recurring convulsion, whether it occurs in idiopathic or symptomatic epilepsy, is a real problem. The use of the electro-encephalogram in the diagnosis of epilepsy has proved very useful. The encephalogram has a typical appearance in both the grand mal and petit mal attacks and may be used in the differential diagnosis.

Bromides and phenobarbital have proved very useful when the doses are increased until the limit of the patient's tolerance is reached, but they have been ineffective in many cases. The use of the ketogenic diet has successfully controlled epilepsy in many cases, especially the petit mal type of convulsions which were uninfluenced by bromides or phenobarbital, but the services of a dietitian are necessary and the diet is difficult to control unless there is excellent co-operation by the patient. In a considerable group of cases, however, this treatment does not relieve the attacks. After careful and painstaking tests of a

large number of sedative drugs, Merritt and Putnam came to the conclusion that diphenyl hydantoinate was the most potent drug in the prevention of convulsive seizures that were induced in animals by electric stimulation of the cerebral cortex. By using this drug in the treatment of epilepsy of both the grand mal and petit mal types, they have demonstrated very striking results. In a series of 118 cases in which the convulsions were of the grand mal type, 58 per cent of the patients were freed entirely of attacks and in 27 per cent of the cases there was a marked reduction in the number of the attacks. This leaves only 15 per cent of cases in which the patients were not benefited. Of the seventy-four patients who had petit mal convulsions 35 per cent were relieved of their attacks and an additional 48 per cent were definitely benefited. Toxic symptoms, such as dizziness, slight nausea and ataxia, occurred in about 15 per cent of the cases. These symptoms occurred during the second week of the treatment but disappeared when the dose of the drug was reduced and did not reappear after a gradual return to the regular dose. Skin manifestations, such as purpura and dermatitis (morbilliform rash), occurred in about 5 per cent of cases. The dose recommended is from  $\frac{3}{4}$  grain (0.05 gm.) three times a day for small children, to  $1\frac{1}{2}$  grain (0.1 gm.) three to four times a day, for children up to fifteen years of age. My experience with the drug during the past four months confirms the work of Merritt and Putnam, namely, that diphenyl hydantoinate is a drug of great value in the treatment of convulsive seizures and is definitely superior to phenobarbital in its effect on petit mal seizures.

### VITAMINS

The clinical interest in vitamins has been especially centered about the determination of low-grade deficiencies and determination of minimal amounts of the various vitamins necessary for health.

Vitamin A has been isolated and its synthesis has been successfully performed. Very few cases of xerophthalmia have been described in the United States, but the subclinical deficiencies seem likely to be more frequent. How to recognize these early deficiencies and how to determine the minimal amount of this vitamin that is necessary for health is still an unsolved question. The use of the biophotometer for a determination of night blindness seemed for a time to be a definite method for determining vitamin A deficiency. Recent work, however, does not bear this out. The fact that the Mead Johnson award for the clinical determination of adequate vitamin A intake has not yet been awarded indicates that the question is still an open one.

Vitamin B therapy has made great advances in the past year. This vitamin was isolated and synthesized a number of years ago and its action is intimately associated with carbohydrate metabo-



lism. The finding of pyruvic acid in the blood of patients with beriberi seems to indicate that it cannot be further broken down in the absence of vitamin B. The presence of pyruvic acid in the blood, as a clinical test for insufficiency of the vitamin, has not been generally accepted and there is no other clinical test that is available. The low output of this vitamin in the urine has been suggested as a test for its insufficient intake. Whether vitamin B deficiency is as widespread generally as Waring's report of nutritional heart disease (beriberi heart) would indicate for Charleston, South Carolina, is difficult to say. In a mild form, its relationship to a gain in weight and appetite is of interest, particularly its relationship to carbohydrate metabolism.

Recent results obtained by Elvehjem with use of nicotinic acid in the cure of blacktongue in dogs and the very recent work of Spies and his co-workers in the use of nicotinic acid in the treatment of the affection of the mucous membrane as well as the erythema of the skin in cases of pellagra indicate that it is a definite factor in the control of this disease. Pellagra is very rarely seen in the North but my colleagues from the South tell me that they see it very frequently among children.

The clinical tests for vitamin C deficiency have been established that the normal concentration of this vitamin in the blood is 0.7 mg. per 100 cc. and that the normal amounts excreted in the urine in twenty-four hours is 1 to 2 mg. by infants and 15 to 30 mg. by adults. A concentration of 0.7 to 0.4 mg. per 100 cc. of blood is indeterminate but concentrations below 0.4 mg. per 100 cc. are usually associated with symptoms of scurvy. When given to a person who has vitamin C deficiency, it is retained in the body until a certain concentration is reached before it appears in the urine. That such a maximal saturation is necessary for optimal health has not been proved but its quantitative determination in the urine does give us a clinical test for its content in the blood. The increased administration of vitamin C during pregnancy and lactation is important to assure adequate vitamin C in the breast milk. In gastro-intestinal disease, tuberculosis, and rheumatic fever, the increased loss of this vitamin must be compensated by an increased intake. Its administration in large doses in diphtheria and all diseases associated with a hemorrhagic tendency has been recommended. Unit for unit, ascorbic acid does not seem to be as efficient as lemon juice. This led to the discovery of vitamin P by Szent-Györgyi. This vitamin is effective in controlling capillary permeability and renders vitamin C more effective.

It recently has been pointed out by Bills that there are numerous active forms of vitamin D, only two of which are important in preventing disease in man; these are activated ergosterol and dehydrocholesterol. The great number of products

marketed under special trade names has somewhat complicated the treatment of rickets which was relatively simple when a teaspoonful of standard cod liver oil was given two or three times a day. There is many a mother who cannot believe that her child would willingly take cod liver oil, but very few infants vomit the oil or refuse to take it. In the exceptional case, viosterol or one of the highly potent fish oils can be given. Personally, I still prefer to use the standard cod liver oil. Harnapp has recently advocated a single dose of 15 mg. of vitamin D<sub>2</sub> (calciferol) for the rapid and successful cure of rickets and spasmophilia.

Vitamin K seems to be of definite value in the treatment of certain types of bleeding. The oral administration of the vitamin in the presence of bile results in an increased concentration of prothrombin in the blood and at times has an inhibiting effect on actual bleeding.

The emphasis placed on the vitamins has made the public so vitamin conscious that many persons have the idea that only with special preparation can the normal needs of children be met. This applies to only one vitamin, namely, vitamin D, which in the wintertime is not available in adequate amounts in most places. It must be emphasized, in conclusion, that our vitamin needs should be met by what we purchase in the grocery store rather than what we purchase in the drug store.

#### GLANDS OF INTERNAL SECRETION

In general practice, the use of the glandular products therapeutically is becoming dangerous to the patient. Heretofore, with the exception of thyroid extract, epinephrine, and insulin, glandular products have not had any great biologic effects. This has changed in recent years, and there are now many products available that may be harmful to the patient. In a recent review on the anterior pituitary body Rynearson said: "Splendid results have been achieved, and physicians who have adequate knowledge of endocrine products should be encouraged to treat patients whom they can study carefully and observe closely. Advancement will be halted by the continued unplanned and mismanaged treatment of patients who received unidentified preparations for undiagnosed conditions." This applies with equal force to other glandular products.

Such careful observers as Evans and Shelton in a report on the use of anterior pituitary extract said that: "From the purely clinical standpoint the growth promoting property is disappointing," and "that its administration is not without an element of physiologic danger." There is still much work to be done before the product should be used by the physician in general practice.

The most frequent example of the misuse of glandular products has been their use in the treatment of undescended testes. Using the same biologic products, observers have reported all the way from 10 to 75 per cent of cures. As Ham-

ilton has rightly pointed out, this difference is due largely to the inability to distinguish between a false and true cryptorchidism. Testes that descended in a few hours after a single injection, as well as many of those that descended after a few injections, might just as successfully have been brought down into the scrotum by a hot compress to the perineum. Nixon reports 25 per cent of cures; Hamilton reported only about 10 per cent cures in cases of unilateral cryptorchidism. Pictures of adult genitalia in boys between six and eight years of age, which appeared in recent publications, and reports of erections and emissions in these boys must make it evident that treatment continued to such a point is going a bit far in the treatment of cases of undescended testes. The motto, "nihil nocere" should be constantly before us when using glandular extracts.

#### DISCUSSION

Question: What is the danger of bringing on agranulocytosis in using sulfanilamide?

Answer: The danger of agranulocytosis in the doses given I do not believe is very great. In the first place, it usually is not necessary to continue

treatment for any great length of time. Two weeks is usually sufficient to clear up urinary infection, and the dose as I give it, 10 grains per 20 pounds of body weight, is only about two-thirds of that usually recommended. It may be necessary for a few days to go to a dosage of 15 grains per 20 pounds body weight. We have not seen anything but slight cyanosis and, as I pointed out, cyanosis is not an indication of danger.

Question: What about sulfanilamide in rheumatic fever?

Answer: Sulfanilamide is of no use in rheumatic fever.

Question: Will you comment on hydrocele in a child fourteen months old—treatment and management of those cases?

Answer: I think with regard to hydrocele that it is largely a matter of tension. At fifteen months, unless it is excessively large, enough of them disappear spontaneously so that no treatment is indicated. If on the other hand the swelling is gradually increasing in size, there is irritation, then I think that it can be resected.

## NUPERCAINE COMBINATIONS USED IN SPINAL ANESTHESIA\*

### EIGHT YEAR REVIEW

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The recorded experiences of many anesthetists during the past eight years have proven beyond reasonable doubt the immense value of nupercaine when employed as the active agent subdurally for prolonged spinal anesthesia. One has to review only a small part of the growing mass of literature on the subject to be favorably impressed by the excellent and very gratifying results obtained by many different anesthetists using nupercaine, each in his own way and by whatever method he considered to be best suited to his particular anesthetic problem. Thus the status of spinal anesthesia has been measurably advanced.

The anesthetic properties of nupercaine, a quino-line derivative, were reported first in Europe in 1929. The chemical structure and toxicity of nupercaine have been carefully studied and reported by Uhlman<sup>1</sup>, Bond and Bloom<sup>2</sup>, Macdonald

and Israels<sup>3</sup>, and various other writers. In this short paper, suffice it to say that the anesthetic potency of nupercaine is ten times that of cocaine, and twenty times that of procaine. The drug, therefore, is used in comparatively small quantities and is effective in extremely high dilutions, thus providing a preparation which is much less toxic than the usual cocaine or procaine solutions.

It is not the intent of this paper to attempt to set up any particular method or technique as being the one and only way in which to produce spinal anesthesia; but, rather it proposes to discuss certain combinations of drugs which have been most valuable in the past and which promise to maintain in the future an admirable position in the roster of anesthetic agents.

The technique or method of producing spinal anesthesia with nupercaine may be any one of many, depending largely upon the individual preference of the surgeon, the anesthetist, or the surgical condition at hand. Howard Jones<sup>4</sup>, of London, employs a solution of nupercaine 1:1500 in 0.5% saline. The specific gravity of this preparation is

\* Presented before the Section on Anesthesia of the Indiana State Medical Association at the Indianapolis session, October 5, 1938.

<sup>1</sup> Uhlmann, F.: Ueber Percain, Ein Neues Local Anestheticum. *Narkose und Anesthetie*, Vol. ii, No. 6, pp. 168-173, June 15, 1929.

<sup>2</sup> Bond, W. R., and Bloom, N.: Studies on the Toxicity of  $\alpha$ -butyloxyinchoninic acid Diethyl-ethylenediamid Hydrochloride (nupercaine) *J. Lab. and Clin. Med.*, Vol. XVI, No. 5, p. 447, Feb. 1931.

<sup>3</sup> Macdonald and Israels: Pharmacology of Percain. *British Med. Jour.*, No. 3699, p. 986, Nov. 28, 1931.

<sup>4</sup> Jones, Howard: *The Lancet*, Vol. 219, p. 549, Sept. 6, 1930; *British Jour. of Anes.*, Vol 7, p. 99, No. 3 and No. 4, p. 146, 1930.



1.003, which is almost invariably less than that of spinal fluid, hence the name, the Jones "hypobaric" solution. Keyes and McLellan<sup>5</sup>, use a 1:200 buffered nupercaine solution which is approximately isotonic with spinal fluid. They depend to a large degree upon the amount of spinal fluid withdrawn and reinjected to determine the height of anesthesia. Although these two techniques differ quite materially in most details, yet both require Trendelenburg position and both have the disadvantage of slow onset of anesthesia.

Eight years ago, as Romberger<sup>6</sup> pointed out in his original article, "Combined Novocaine-Nupercaine Spinal Anesthesia," we were searching diligently for a method that routinely would produce spinal anesthesia lasting in excess of two hours. The first accounts on the use of nupercaine alone gave rise to the hopes that the problem was solved, but further study disclosed many disadvantages of the quite frequently delayed onset of anesthesia. This particular feature might be of no consequence in some clinics or hospitals, in fact it could be of definite value to some, but the loss of ten or more additional minutes at the beginning of each surgical procedure was deemed to be impractical in our practice. Knowing that procaine produces almost immediate anesthesia when injected into the subarachnoid space, and being accustomed to mixing other anesthetic agents (such as nitrous oxide-oxygen and ether) to obtain desired results, we studied various solutions and dilutions of procaine and nupercaine in an intense effort to discover if the separate advantages of each drug still would obtain when the two were combined. Fortunately, such proved to be true, and these solutions have provided very satisfactory, prolonged anesthesia in better than ninety-nine per cent of the one thousand and twenty of our spinal anesthesia cases in which this method has been employed. This is the record as of September 26, 1938.

Other anesthetists who have employed the combined procaine-nupercaine solutions report equally satisfactory results. Holder<sup>7</sup> of San Diego, California, writes: "Failure to obtain anesthesia did not occur with the procaine-nupercaine mixture. Furthermore, almost immediate anesthesia was obtained, and it lasted 3 to 5 hours."

The technique practiced in this series is essentially the same as that reported by Romberger in the above mentioned paper. The only modification, of any note, is the slight increase in the dosage of nupercaine from 5 to 7.5 mgm. to an average of 7.5 to 10 mgm. The former dosage was published

so as to err rather on the side of safety. With an experience now extending over one thousand cases, we feel that the latter figures still are conservative. The amount of procaine added to the mixture usually is from 150 to 225 mgm., maintaining the 10% factor which has a specific gravity of approximately 1.018. The total quantity to be injected ranges from 1½ to 3 cc. This solution is definitely heavier than spinal fluid, so may be injected with the patient sitting up, or in a lateral decubitus position. But when the patient is placed on his back, his head and shoulders should be elevated slightly or the table adjusted to a small degree of Fowler's position.

This method has several features which tend to simplify and to achieve greater certainty in spinal anesthesia. In the first place, the quantity of solution introduced into the spinal canal is small, averaging 1½ to 3 cc. as compared with up to 10 cc. by the Keyes technique and up to 15 to 18 cc. when used by the Jones method. Experimentally, in glass spines, small-bulk diffusions have been shown to lend themselves to better control. Secondly, with the heavy solution, the patient may be turned on his back immediately following the injection and always may and should be adjusted to a comfortable position. Most patients rest more easily when lying on the back with head and shoulders slightly elevated. Thirdly, as this hypertonic solution travels along the posterior compartment of the canal, it produces almost instantaneous sensory block; therefore, its upward progress and effectiveness can be determined merely by testing the height of anesthesia on the surface of the body. Sensory anesthesia extends a little higher cephalad than does motor paralysis, thereby providing an excellent guide as to the amount of muscular relaxation to be expected, and giving a warning signal in the event the solution is traveling too high and too fast. Fourthly, the mixture behaves within the subarachnoid space exactly as does the concentrated procaine solution in spinal fluid. Accordingly, the same factors of control are applicable, and the height of anesthesia on the surface of the body can be governed by the following five, well-known variables: (1) the amount of drug used, (2) the amount of solution reinjected into the spinal canal, (3) the rate or force of injection, (4) the interspace that is tapped, and (5) the plane or position of the table.

The effectiveness of this control is very well demonstrated by the illustrative case of a male, age 57, who was to be operated for a suprapubic urinary fistula. At 11:05 a. m. the anesthetic solution (consisting of procaine 200 mgm., nupercaine 8½ mgm., and spinal fluid to make 2 cc.) was injected through the third lumbar interspace. The patient was placed on his back with the table in slight Fowler's position, and the abdomen was prepared for surgery. At 11:10 the operation was begun with anesthesia at the level of the ninth intercostal space. By 11:20, anesthesia was at the

<sup>5</sup> Keyes, E. L., and McLellan, A. M.: *Amer. Jour. Surg.*, Vol. 9, No. 1, p. 1-8, July, 1930, and *J. A. M. A.*, Vol. 96, p. 2085, June 20, 1931.

<sup>6</sup> Romberger, F. T.: Combined Novocaine-Nupercaine Spinal Anesthesia, *Amer. Jour. Surg.*, Vol. 11, No. 3, p. 471-477, March, 1931.

<sup>7</sup> Holder, H. G.: Mixture of Novocaine and Nupercaine in Spinal Anesthesia. *Calif. and West. Med.*, February, 1934.

seventh intercostal space and did not go higher during the next ten minutes. At 11:30, the patient's head was lowered to a slight degree of Trendelenburg, and the anesthesia advanced to the nipple line, the fifth intercostal space, where it remained for one hour and forty minutes, until 1:10 p. m. The operation was finished at 1:25 p. m., at which time the level of anesthesia had receded to the ensiform area. The anesthesia had been very satisfactory for a surgical procedure of two hours and fifteen minutes duration.

A minor disadvantage of this hyperbaric solution is that the nupercaine element may or may not have become entirely impotent and fixed in the nerve roots after an interval of twenty to thirty minutes. There may be pocketing, or a slight delay in diffusion might occur. Therefore, this solution should not be used in cases where immediate Trendelenburg position is proposed.

In those cases in which the surgical problem has been such as to require prolonged anesthesia with the patient in deep Trendelenburg position, or in the lateral decubitus, as in operations on the kidney, we have found a combined solution of spinocaine and nupercaine to give most satisfactory results. Spinocaine and the 1:200 solution of nupercaine mix quite readily and give a very easily controlled hypobaric solution. That is, when equal quantities, such as 2 cc. of spinocaine and 2 cc. of the isotonic solution of nupercaine are blended, the resultant preparation has a specific gravity of approximately 1.003. When using this mixture, the anesthetist must remember that he is dealing with a solution having a lighter specific gravity than has spinal fluid, one that will rise in the spinal canal, and one that, therefore, must never be administered with the patient in the sitting posture. The injection of three or four cubic centimeters of this solution, depending on the size of the patient and the type of surgery, should be made with the patient in the lateral decubitus position. The patient, then, is turned on his back if the surgery requires it, or is made comfortable on his side, as for kidney operations, and the head of the table is adjusted to whatever degree of Trendelenburg gives the proper height of anesthesia in this individual case. Anesthesia usually will be induced almost immediately and may be expected to last at least 2½ to 3 hours.

It is well to remember at this point that the spinocaine-nupercaine solution will float in spinal fluid and, with the patient in the dorsal decubitus, will tend to rise toward the anterior spinal nerve roots, thus producing motor block a little higher cephalad than sensory block. This leads one to feel that this preparation should not be used to obtain sensory anesthesia as high on the chest wall as is safe with the heavier solution.

Heard<sup>8</sup>, of Toronto, stresses the importance of

knowing the relative specific gravities of the solution to be used and of the spinal fluid of the patient at hand. Unquestionably, a large number of failures to produce spinal anesthesia, and perhaps some deaths, have occurred because certain anesthetists have not recognized that there exist wide variations in the behavior of hypobaric and hyperbaric solutions when injected into the subarachnoid space. Text books agree that there is no standard spinal fluid specific gravity, that it may vary as much as from 1.001 to 1.009, but usually is approximately 1.007.

The factor that is essential for the anesthetist to determine is whether the solution to be used is lighter or heavier than the spinal fluid of his patient. This may be ascertained by the very excellent method outlined by Heard, but for practical purposes there is a simpler procedure. As spinal fluid is slowly aspirated into a syringe containing a solution of procaine-nupercaine or spinocaine-nupercaine, it may be observed to stratify almost as distinctly as does oil in water. In almost 100% of cases, if the syringe contains dissolved procaine-nupercaine, the spinal fluid will rise and float at the top of the cylinder, thus demonstrating that the specific gravity of the solution is heavier than that of the spinal fluid. If the syringe contains a mixture of spinocaine-nupercaine, the action should be just the reverse; that is, the spinal fluid should sink and rest on the bottom of the barrel, denoting a solution that is lighter than the spinal fluid. If every anesthetist would remember to make this simple observation each time before he injects an anesthetic solution into the subarachnoid space, his results undoubtedly would be more uniform and more satisfactory.

Throughout this series of cases, especial attention has been paid to the comfort and well-being of these patients who are undergoing long, difficult, surgical procedures. The observation has been made repeatedly that these patients suffer a minimum amount of discomfort during the operation, and the post-operative sequelae are few. There is less complaint of nausea, and vomiting occurs but rarely. The fall in blood pressure is small, and a more constant level is maintained after the initial drop. Headache and backache have annoyed a few cases but have been neither severe nor persistent.

A small per cent of these cases required supplemental anesthesia for one reason or another. If the spinal block did not last long enough or if the patient became too apprehensive, gas-oxygen or ether was given in whatever amount was needed to make the anesthesia satisfactory to both patient and surgeon.

The nupercaine combinations were used largely in those cases in which the surgical procedure was expected to last a full hour or more. Many of these patients were good surgical risks, but some were not. A few have failed to survive, but in no instance has the agent used, or the spinal anes-

<sup>8</sup> Heard, K. M.: The Influence Upon Spinal Anesthesia of Certain Characteristics of the Spinal Fluid. *Anes. and Anal.*, Vol. 17, No. 3, p. 121-129, May-June, 1938.



thetia, per se, been held responsible as the cause of death.

It is well recognized that the safety of any spinal anesthetic depends upon the skill and knowledge of the anesthetist. It is believed with ever-increasing certitude that the nupercaine combinations are the safest for the average anesthetist to use in producing spinal anesthesia for prolonged surgery. Not only are they safe, they are dependable and controllable. The drugs used are standard preparations for spinal anesthesia, and there is nothing mysterious about the way in which they are mixed. With average skill and a little study the spinal anesthetist should be able to produce a more satisfactory anesthesia with the combination than with either drug used alone.

#### CONCLUSIONS

Spinal anesthesia produced by nupercaine solutions alone comes on relatively slowly, then, once the block has become established, it lasts a long time. The anesthesia resulting from procaine solutions appears almost immediately, but it cannot be depended upon for more than one hour. Nupercaine combined with procaine tends to minimize the disadvantages of each and to enhance the desirable features of both.

Nupercaine may be combined with procaine for surgery with the patient in Fowler's position and with spinocaine for operations in those cases requiring Trendelenburg position. Since the level of the anesthetic solution in the spinal canal is readily determined by the height of surface anesthesia, the combined solution of nupercaine-procaine is considered to be safer in average hands than is the solution of nupercaine alone.

#### DISCUSSION

GEORGE M. ROSENHEIMER, M. D. (South Bend): I have nothing much to add to Dr. Ratcliff's paper. I only want to stress the point that Dr. Romberger and Dr. Ratcliff have given something to anesthetists in the use of novocaine and spinocaine, because the majority of us have a few surgeons who take longer than 40 to 50 minutes to operate and, heretofore, with their spinals, we have been up against it and have had to add some other anesthetic agent. Those of us doing most of our work on private patients have to add something else, and now with the nupercaine combination you can get as long an anesthetic as you wish. I have been using it for about six or seven years. I haven't been using quite the large dosage of nupercaine which they have, but I see no contra-indication for it. I am not going to take any more time, but I would like for Dr. Romberger to say a few words, since he started us on this method.

FLOYD T. ROMBERGER, M. D. (Lafayette): I have no apology to make for having developed this combination and for having offered it to the profession a number of years ago. I could speak for

an hour on the background of the reasons as to why we felt ourselves forced or entitled to seek something better than just plain novocaine. The reasons, of course, are perfectly obvious to all of you.

I think that the method and the technic which Dr. Ratcliff has described here, tried over a period of eight years, with more than a thousand successful administrations, speaks for itself. I know that there exists in this country, in certain sections, criticism toward the use of nupercaine. They just don't know how to use it properly. However, we practice anesthesia in a relatively small community. We see our patients walking the streets for the rest of our lives afterwards. Hardly a day passes that I do not meet somebody on the street or walking through the building in which we have our offices who has been subjected not only once, but some as many as four or five times, to this particular combination. It must, therefore, appear reasonable to you that we would not go ahead, day after day and year after year, using the combination in this same community, in the same hospitals, and for the same surgeons, if it were not satisfactory.

We all recognize the fact that in adapting any agent or agents in the community in which we live, we must consider both the patient and the surgeon. Objections of a strenuous nature from either side certainly would condemn the use of any agent in this type of practice. There still are available in my office a few reprints of the first publication of this combination in this country. If any of you may be interested in investigating further, I would be glad to send you a copy if you will give me your names; and I am sure that Dr. Ratcliff will be glad to do the same.

E. T. ZARING, M. D. (Terre Haute): My question may be a little amiss, but I would like to ask the doctor what use they have made of metycaine? I have used it a few times but have not found it so successful; what is your experience?

FRANK W. RATCLIFF, M. D. (closing): In answer to Dr. Zaring's question on metycaine—we used metycaine several times when it first was put out under a different name (neothetin), and we used it in a slightly smaller dosage than novocaine or procaine. It gives satisfactory anesthesia for a little over one hour. If you consider procaine as a standard, lasting on the average of approximately one hour, a similar dosage, or an equivalent dosage of metycaine, will last a little over an hour—perhaps an hour and a half. However, in our experience, metycaine does not give as satisfactory anesthesia for prolonged surgery as does the procaine-nupercaine combinations here discussed.

IF YOUR DUES ARE NOT PAID,  
YOU ARE DELINQUENT NOW!

## HYGIENE OF INFANCY AND CHILDHOOD

Second of a series of articles on Child Health  
sponsored by the Indiana Pediatric Society

In the eighteenth century, two out of every four burials were of children. This fact is sufficient to make us realize that the increase in life expectancy of children today is not just an accident but is the direct result of the realization by parents of their obligation to their children. Of course, there are many other factors that have contributed to this advancement, such as improved sanitation, protection against many diseases, greater knowledge in the field of artificial feeding of infants, and the dissemination of this information by local, state, and federal governments. This parental awakening is just a part of the great change in our modern philosophy of human relationships. The more considerate attitude of capital toward labor in regard to hours of work, safety devices, better living conditions, sources of recreation and child labor problems has been caused by the same reactions as the mother who strives to raise her children in perfect health. The only difference today is that the mother's problems are becoming less complicated all the time. The resolve of a mother to carry out a few simple rules will almost guarantee for her the successful physical development of her children.

Many young mothers are frightened by the anticipation of the problems that arise in rearing children. It is not necessary for her to be so frightened, because today, with the wealth of information readily accessible, it is possible for her to follow a well marked road directly to her goal. The application of a few principles such as motherly love, personal cleanliness, love of sunshine and fresh air, being fair and considerate of her children will make the mother's problems very easy to solve. And the advent of canned milk and vegetables, pre-cooked cereals, bottled sunshine and paper diapers have removed much of the drudgery from the picture.

A mother's responsibility does not begin at the birth of the child but at the time of conception. The pre-natal care of the child and mother is the first step toward the successful rearing of her child. Many mothers are negligent about this matter and do not see a physician until the latter part of pregnancy. In fact, in this community, more than two-thirds of the mothers do not see a physician until the latter half of the pregnancy.

Most physicians charge a set fee for the care of an obstetrical patient. That care includes: (a) the examination of the mother at stated intervals before delivery, (b) the delivery of the baby, and (c) the care of the mother and child after delivery. So, it behooves every expectant mother to see her physician just as soon as she knows that she is pregnant. It will not cost any more in actual dollars and she immediately establishes her doctor

as her medical counselor to turn to for advice. In the pre-natal care, the mother's pelvis is measured in order to be positive that she may have a normal birth. The urine and blood pressure are checked at regular intervals because most of the difficulties in pregnancy are announced by some change in the urine or blood pressure. The diet is supervised. It is important that she receives enough calcium to supply the needs of her body and that of her baby. Vitamins play an important part in the baby's health, and the mother demands a greater supply in her diet during this period. The total intake of food must be increased without the mother gaining too much weight.

During the last few months of pregnancy most of the serious accidents occur. By having frequent examinations the patient is directed through most of the dangerous periods without trouble. A large percentage of stillborn babies and the deaths of mothers during childbirth could be prevented if the mother had been watched carefully during this period.

The next important step in protecting your child's future is the decision of where to have your baby, at home or the hospital. At present about seventy-five percent of all babies are born in the hospital. The increasing percent of babies born in a hospital clearly emphasizes the greater convenience and safety of the hospital during childbirth. The chief advantages of the hospital can be set down as (1) constant supervision of mother and child by graduate nurses and physicians who have been especially trained for this type of work, (2) the isolation of the baby during this period to prevent the development of any intercurrent disease, (3) the most modern equipment necessary for the care of mother and child, and (4) the facilities to meet any emergency that might arise during this very critical period. The last feature is perhaps most important because it is during some emergency of this period that most of the fatalities occur, and many could have been prevented, if they had occurred in the hospital. Having your baby in the hospital is just one more step toward insuring your child's future health.

After the child is delivered and the umbilical cord is tied, the baby is given to the nurse for its immediate care. The eyes are treated with 2% silver nitrate or 25% argyrol to prevent any gonorrheal infection of the eyes during the delivery. The baby is then given its first bath. Most babies at birth are covered with a white, greasy material known as vernix caseosa. This substance can be removed by a soap and water bath followed by the use of benzoated lard or olive oil, or either of the latter two substances alone is sufficient. A soap and water bath followed by an oil rub is given to



the baby daily during its stay in the hospital. If the skin is exceptionally dry, the water bath is stopped; if the skin is sensitive to the soap, the soap is discontinued. Powder is seldom used as it cakes in the folds of the skin. The prevention of the occurrence of skin infections of new born children in hospitals is one of the most difficult problems of obstetrical hospitals. Two factors that seem to control this situation are the prevention of any irritation of the baby's skin where the infection might start, and the prevention of contamination of the skin of the new born by any body or any thing. To prevent contamination of the skin of the baby, everybody who comes in direct contact with the baby wears sterilized gowns, face masks, and rubber gloves. The soap, water, and every piece of wearing apparel is sterilized. This is the reason why visitors cannot come into direct contact with the babies. In many hospitals, it is thought that the daily bath produces small areas of irritation of the skin, producing possible areas for infection. To prevent this, a new technic has been carried out in many hospitals. The baby's face is washed after delivery and thereafter during the hospital stay it is not given any bath, except to wash the face and buttocks. Within twenty-four hours after birth, the baby's skin becomes pink and clean. It is impossible to tell that the child has not been bathed. Under this regime some hospitals have not had any skin infections among their new born babies in years. The only objection to this type of care has come from the fastidious mother who cannot bear to think of her child not having a bath for several days.

The temperature of the nursery for the first ten to fourteen days should be from 80 to 85 degrees Fahrenheit. At this temperature the baby should wear a diaper, light cotton shirt, and a cotton or flannel gown. A light cotton blanket can be thrown over the bassinet. Any additional clothing is too much and will produce a heat rash.

The fatty tissue just beneath the skin is one of the last tissues to develop in the body. This fatty tissue acts as an insulation. Therefore, until this is completely developed, the baby cannot retain its body heat or resist any external heat, and there is the need to keep the temperature at a high and constant degree during the first two weeks. If the baby's temperature remains between 98 and 100 degrees Fahrenheit (rectal temperature) you will know that the room is warm enough. If the temperature is subnormal, the baby must be kept warmer. After the first two weeks the room temperature may be kept from 70 to 75 degrees Fahrenheit during the day and not below 50 to 55 degrees at night.

Many babies die during this new born period because of some infection of the upper respiratory tract such as bronchitis or pneumonia. Young babies have very little resistance to such diseases and have to be infected by some other person, usually some older child or adult. Babies are not

playthings and should not be passed out to be held, jiggled, and kissed by every visitor. The surest way to protect your child is to prevent any one from seeing it. Your friends will have plenty of time to see your child after it has started to grow and to develop some protection against the various diseases.

The mother's breasts do not begin to secrete milk for four to five days after birth. During this interval the child is put to the breast every four to six hours to stimulate the secretion of milk. However, it secures very little nourishment from the mother and consequently most babies lose from five to ten per cent of their birth weight during this period. Greater effort by the nurse to have the baby take boiled water, or whatever solution the physician desires, after it nurses will reduce this loss in weight. Most babies regain their birth weight within the first two weeks.

It is a sad commentary on the American mother that only six mothers out of a hundred can completely nurse their child. In spite of the great advance in the science of infant feeding, nothing has been found that can compare with breast milk as a food during the first few months of a baby's life. It has been said that there has never been a president of the United States that was not a breast fed child, and surely no mother wants to deprive her child of such a possibility.

To summarize the care of the child during its first few weeks, the following recommendations are made to the mothers when they leave the hospital:

1. Keep your baby away from everybody except the person who is caring for it. That means visitors, older brothers and sisters, grandparents, and other members of the family.
2. The baby will be nursing or taking a bottle every three or four hours. It should be offered warm, boiled water between feedings if awake. Do not have water or milk too hot.
3. If the navel is healed, it is not necessary to wear a band. Use the band only so long as it is necessary to have a dressing over the navel.
4. Do not disturb the child except to feed it or to change diapers. If it cries, change its position, also its diaper if necessary. Picking it up, rocking it or carrying it will only help it to desire the same procedure carried out the next time.
5. All babies should receive some form of cod liver oil during the winter months. It is more convenient to give one of the concentrated forms of cod liver oil, when the baby is small. It should be started as soon as the child is taken home. Most of the mothers give it in the morning just before the bath.
6. Sterilize all bottles and nipples by boiling for five minutes.

Most of the trouble occurring in babies during the first few weeks of life is caused by one of the following conditions: (1) Child is kept too warm. (2) Child is not receiving enough food. (3) Too

much handling of baby by family. (4) Exposure to some person having a cold. (5) Use of too strong soap or too much soap. (6) Use of some water softener in washing diapers and not thoroughly rinsing the diapers. (7) Not keeping bottles and nipples clean.

### SLEEP

Food and rest are two indispensable needs of the growing child. There is no better way to determine the child's adjustment to his environment than by studying his sleeping habits. The well adjusted child does not make a scene about going to bed at a regular time, he sleeps soundly and quietly, and does not fight a daily nap.

A few years ago the Institute of Child Welfare of the University of Minnesota with the aid of over a thousand mothers in all sections of the state undertook a study of sleep in young children. The result of this study was the discovery that most recommendations concerning the necessary hours of sleep are too high.

In the following table is presented the total amount of sleep within a twenty-four hour period, that is, night sleep plus naps, found necessary by this group:

Age	Hours	Minutes
Before one year .....	14	45
One year .....	13	14
Two years .....	12	43
Three years .....	12	07
Four years .....	11	43
Five years .....	11	18
Six years .....	11	04
Seven years .....	10	58

The only suggestion to make is that if the child is not securing his allotted sleep, then his sleeping habits should be investigated and the mother interested in the problem of sleep<sup>1</sup>.

The second interesting table from the study shows the bedtime of children at different ages.

Age	Time
Below one year .....	7:05
One year .....	7:24
Two years .....	7:48
Three years .....	7:52
Four years .....	7:53
Five years .....	7:55
Six years .....	7:59
Seven years .....	8:10

By evening children are fatigued. They spend an active and strenuous day. Fatigue means irritability and loss of appetite. Rest is the magic wand that cures all these evils. Most children are put to bed too late. An interesting fact developed in this study was that the higher the education of the mother the earlier she puts her children to bed and the longer the children sleep.

Most mothers worry over the fact that it takes her children so long to go to sleep. A study was

made of the length of time it took children to go to sleep. The results both for afternoon nap and night sleep show that the average child takes twenty minutes to go to sleep.

In preparing the child for sleep, one should reduce as far as possible all the exciting influences. The hour preceding bed time should be quiet and relaxing. Eliminate vigorous play, loud and exciting radio programs and stories. Select an early bed time, try to have some pleasant experience associated with going to bed, darken the room, open the window, and most of your sleeping problems will be solved.

Too much talk about sleep, the nervous apprehensive mother who is afraid her child will not go to sleep, and disciplining children by sending them to bed underlie most of the sleeping difficulties.

### FOOD

Every growing child should receive some form of cod liver oil during the winter months, from October fifteenth to May fifteenth in this region. The new born babies should receive it within two to four weeks after birth. If the baby is on a bottle, he should receive some form of vitamin C daily, at least an ounce of orange, tomato, or pineapple juice, beginning about one month of age. If the baby is on the breast, it is not necessary to give it the fruit juice because it secures the vitamin through the breast milk. It is only when the milk is boiled that the vitamin C is destroyed and has to be added to the child's diet.

Between the third and fifth month, solid food should be added to the child's diet. Cereal, strained vegetables, egg yolk and stewed fruits are generally added in this order. This step involves learning to use a spoon as well as eating solid food. It is a very definite development in the child and it requires time. Don't become discouraged if it requires some time for the child to accomplish this feat. Start early and do not force the youngster.

About nine months of age (frequently later) the child is placed upon three meals a day. This involves a change from two naps to only one nap and longer intervals between feedings.

Beginning with the second year the greatest problem with children is not what to feed them but how to help them to acquire good eating habits. Dr. A. C. Aldrich's book, "Cultivating the Child's Appetite," should be read by every mother. It will help to solve most problems relating to poor appetite.

If the following suggestions are carried out, there will not be many eating problems:

1. Feed the child at regular intervals.
2. Do not fuss and plead with him to eat.
3. Allow him to feed himself.

4. Serve small quantities of food. If he will not eat it, take everything away until the next meal.

<sup>1</sup> Faegu and Anderson: page 121-122 Child Care and Training; Institute of Child Welfare, University of Minnesota.



5. Stop all conversation about food except to compliment the child about eating so well, even though he is not eating so much.

6. Plan to have your child eat with other children as frequently as possible.

7. Make the meal time a pleasant occasion. Nothing stimulates the gastric juices as much as pleasure. The opposite also holds true.

#### PLAY

The word "play" implies an entirely different meaning to the adult than to the child. The child's play is "the most serious thing in the world," while the adult's conception of recreation is a relief from work. There are many theories of play and its relation to the child's development. The idea that play fosters growth and prepares the individual for life brings into harmony most of these theories. Active play aids in the physical development of the child, while early group play helps to teach lessons in sharing and playing the game fairly. The child who has not learned to play with other children before going to school will have a greater problem of adjustment to this new situation.

Toys should be selected with a thought to the child's age and its aid in his development. Simple creative toys are more desired than expensive play things that offer only excitement to the child. Parents frequently discard much material about the home that is valuable material as play-things for children. Boxes, worn cooking utensils, clock wheels, and bits of wire are not junk to the child, but furnish the necessary stimulus to creative play. Any reliable book on child training will supply a list of desirable toys according to the child's age and development. Play must have a purpose. Caring for a pet furnishes lessons in sympathy. Provide shelves and closets, so that the child may learn to be orderly and neat by putting away his toys. Play should be supervised but not interfered with by adults. Let the child settle his difficulties himself. It helps teach him to stand on his own feet.

#### FEET

The examination of pre-school children reveals a startling percentage of feet defects in this group. Most of these defects come as a result of poorly fitted shoes. Shoes or stockings that are too short will prevent the foot from assuming a natural position in walking. Wearing shoes too long before discarding them is a common fault. The child's foot grows so rapidly that it needs new shoes about every six to seven weeks. It seldom wears out its shoes, but they should be discarded if too short. If one is careful to note that the tip of the toe is at least one finger's width short of the shoe toe, the shoe should be long enough. I think the increased use of sandals, tennis, and gym shoes, has contributed greatly to the defects in children's feet. These shoes offer no support whatever to the

growing foot and produce a distortion of the bony structures of the feet, resulting in painful feet as the child develops. "Leg ache" in children is usually attributed to rheumatic infection. Many cases are caused by defects of the feet.

There is a group of children who have extremely flat feet not caused by ill fitting shoes. They are usually seen in families who give excellent care to their children. These children are usually slower in walking and in erupting their teeth. They have soft, flabby muscles and the ligaments about the joints are loose and relaxed. When this child stands, the bony arch of the foot spreads and the foot is rotated inward, transferring the weight-bearing area to the inside of the foot instead of to the normal position on the outside of the foot. These children have some faulty calcium metabolism, either because of a deficiency of vitamin D or some mineral factor in the diet or the inability of the child to utilize it if it is in its diet. It is important in the treatment of these children to be sure that their diet contains sufficient calcium, vitamin D, and all other necessary food elements. Have the child wear a corrective shoe that will hold the arch of the foot in its normal position. If the arch is kept in normal position the chances of the child having a good foot are much greater.

#### DISCIPLINE

It is impossible to cover completely the problem of discipline in children within the scope of this article. However, there are a few principles that are so very important that I think they should be repeated sufficiently to impress their value upon the parents. Parents should realize that their obligation to the child is to aid it to become independent as soon as possible. Parents hate to consider the time when they will no longer be in a position to control their children's course in life. Firmness of parents is one essential without which no parent can expect loyalty and respect from his child. Gaining the child's cooperation is more effective than compelling him to "take it." Give the child freedom in accordance with his development. He learns to solve larger problems by being allowed to gain self confidence in meeting simple new situations. Parents must agree on the methods of handling the child. Getting a child's attention is the first step in securing his cooperation in whatever is necessary. One cannot expect a child to comply instantly if he is jerked hastily from whatever is occupying his mind. Give as few commands as possible. Constant nagging produces many stubborn, irritable children. Praise is more effective than blame. Children thrive on praise and the approbation of their parents.

Punishment should never be used except to teach the child that the breaking of some rule or law is naturally followed by some penalty. Punishment should be prompt, just, and the child should understand the purpose of the punishment. The

better the parent, the fewer the occasions which call for punishment.

### CLOTHING

The general trend in clothing is to use undergarments of cotton material next to the skin. Cotton launders much nicer and it is less irritating to the skin than wool. Woolen fabrics are used for outer garments. Try to keep the child's clothing as simple as possible. Allow the child to learn the sequence of dressing and undressing. Let him help, even though it takes longer. Most homes are kept between 70 and 75 degrees Fahrenheit during the winter. At this temperature it is not necessary to greatly increase the weight of clothing. A sweater or jacket may be worn in the morning or evening, if the house is cool, instead of putting on heavier underwear. If the house is well insulated,

it is not necessary to wear long stockings unless the child complains of being cold. If a child is over dressed, it perspires, then becomes chilled and develops a cold. The children who have the most colds during the winter are those who are over dressed. Of course, when the child is out doors, his outer clothing should be warm, loose-fitting and easy to remove.

In conclusion, to quote Faegu & Anderson,<sup>1</sup> (page 46): "These are the precautions which the parent must consider in outlining the routine of the young child. His first needs are good food, and sleep, plenty of fresh air and sunlight, and a happy, care-free home where his interests and needs are considered as well as those of the adult. A calm, placid atmosphere will have much to do with building up a child's physical as well as his mental health."

### PROGRAM TO PREVENT SPREAD OF SYPHILIS IN INDUSTRY

The United States Public Health Service is advocating a six-point program to prevent the spread of syphilis among employees in industry. The recommendations are as follows:

1. Routine blood tests for applicants for employment.
2. Routine blood tests at the time of periodic re-examination of employees.
3. Industry, with its compact organization, should develop a vigorous educational program.
4. Industry should extend its educational campaign into the field of prophylaxis.
5. There is a responsibility upon the industrial medical officers to see that adequate modern treatment is available to employees at prices ordinary wage earners can afford. If such treatment is not available in private practice or at public clinics, industrial medical service should undertake such treatment.
6. Syphilis must at all times be handled as merely another communicable disease. The privacy of relations between the worker and the medical service should be preserved in the best professional tradition. In ordinary cases it cannot be regarded as ground for discrimination of any kind against employees, when treatment is properly required.

Dr. R. A. Vonderlehr, Assistant Surgeon General in charge of the Venereal Disease Division, stated that when syphilis cases are given proper treatment, industry runs a minimum of risk of having workers disabled or partially disabled from the disease. A recent survey showed that symptoms of syphilis of the nervous system resulted in only 1.6 per cent of the properly treated cases under observation. For untreated cases the rate was 16.9 per cent.

These studies also revealed no cases of syphilitic heart disease among the group that had received proper treatment, while 3.4 per cent of the cases having no treatment developed heart trouble during the ten to twenty year observation period.

"Fortunately," Dr. Vonderlehr says, "some of the larger industries have discovered that the control of venereal diseases in industry can hardly be accomplished by dismissals. They assure the worker that so long as proper precautions are taken during the early stages and proper treatment continued, there will be no dismissals following discovery and treatment of infection.

"Some industries have established clinics to treat both infected employee and his family. Those industries have

found out that the employee constantly in fear of being dismissed will neglect treatment and that this neglect simply leads to prolonged and more serious illness. A sick and worried employee is very definitely a liability, at least in terms of inefficiency and possibly in terms of accident and labor turnover.

"Remember, also, that from the public point of view, the patient's continuance of treatment and, therefore, his cure will depend upon the continuance of his income. Nobody would benefit by his discharge. He might easily be thrown upon public relief. That might result from a policy of needlessly discharging syphilitics from their employment.

"The syphilitic person passes through three definite stages: early, latent or symptomless, and late syphilis. If adequate treatment is given to the infected individual, the manifestations of late syphilis are prevented in more than 80 per cent of all cases.

"From the standpoint of incapacitation as a result of syphilis with reference to employment, it should be noted that only those people with very early syphilis—in the first week or two of the disease—and those who have manifestations of late syphilis, might have a lowered earning capacity. The number of syphilitic persons in these categories, however, would not constitute more than 10 per cent of all the syphilitics in the United States."

The greatest proportion of people so infected, Dr. Vonderlehr explained, have the latent or symptomless form of the disease. Thus, unless a special attempt were made to detect the disease through the use of serological blood tests, the average employer would not be able to tell which of his workers were infected.

In its very early stage, before he begins to receive treatment, the patient may have symptoms present which will cause some degree of incapacitation for a few days. These disappear, however, within a week when the patient is given modern treatment, and these treatments should not interfere with his job.

In late syphilis, of many years duration, serious complications involving the brain, spinal cord, or the heart and great blood vessels may occur, in which event the patient would, of course, likewise be incapacitated. This incapacitation would last for a variable time and might possibly be permanent. A great many of the people with such complications are confined to mental or other hospitals more or less permanently and are not a part of the great employed group in this country.



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Pierce MacKenzie, M.D., Evansville.....	Dec. 31, 1940
J. B. Maple, M.D., Sullivan.....	Dec. 31, 1940
Edgar F. Kiser, M.D., Indianapolis.....	Dec. 31, 1941
Lyman T. Rawles, M.D., Fort Wayne.....	Dec. 31, 1941

FEBRUARY, 1939

## Editorials

### SYPHILIS SURVEY

The syphilis survey of Lake County, a project being undertaken under the joint direction of the United States Public Health Service, the Indiana State Board of Health, and the Lake County Medical Society, is now under way after several weeks of intensive planning. The local medical group will be in full charge of the plan, other organizations acting in an advisory capacity. It is believed that the findings of this survey will be of more than common interest to Indiana physicians. At the conclusion of the project, a full report of the findings will be published in *THE JOURNAL*. In connection with the survey, the State Board of Health laboratories will install complete laboratory service for the making of the serological examinations throughout the entire period. The 250 physicians of the county have pledged their cooperation and the local press has offered the fullest publicity to the plan. It confidently is expected that the various civic groups of the county will enter into the spirit of the plan and that the survey will prove to be entirely worth while.

### PROPOSED LEGISLATION

It is much too early to know just what measures will be introduced in the eighty-first regular session of the Indiana General Assembly, and what their effect upon public health and the medical profession will be. The usual cult bills are anticipated, for cult lobbyists have been in evidence since the opening of the session on January fifth. At the end of the first ten days of the session, more

than the usual number of legislative proposals which would affect the medical profession have been proposed. These include: a bill to prohibit the sale and possession of marijuana; a bill asking for an appropriation of \$75,000 for purchase and distribution of pneumonia and other serums to the needy; a pure food and drug law to conform to the federal statute; a bill to prohibit the sale of barbiturates and their derivatives except upon a doctor's prescription; a bill providing for free medical and surgical care and hospitalization in Indiana University hospitals for indigent persons over 16 years of age who have resided in the state one year or more (an arrangement similar to that now in force at Riley Hospital); a group hospital insurance bill; a "doctor" title bill which would prohibit the use of the title by any one except a physician; an automobile accident lien proposal; an occupational disease report bill (sponsored by the State Board of Health) making compulsory the reporting of cases of occupational disease; a marriage law bill providing for compulsory physical examinations and blood tests before marriage; a bill requiring syphilis tests during pregnancy; a bill establishing a plumbers' licensing board, a State Board of Health bill which will do away with the "cross connections" on faulty plumbing which have in times past been responsible for severe typhoid epidemics; and a measure to license water and sewage plant superintendents.

While all of these measures are proposed and some already have been introduced, it is probable that a few never will be introduced and others not yet proposed will be brought out probably before this magazine is on the press. However, your Legislative Committee is wide awake and active in its efforts to protect the best interests of the medical profession. A further report will be made in the March *JOURNAL*.

The members of the Committee on State Medicine and Public Health in the House of Delegates are as follows: Frank T. Mills, Campbellsburg; R. H. Richards, Patricksburg; Walter F. Daniel, Michigan City; Benjamin F. Harris, Jr., Richmond; Ralph E. Hunter, Elizabethtown; Otto C. Neumann, Lafayette; Timothy C. O'Connor, Frankfort; Carl A. Smith, Portland; W. W. Wingate, Muncie; Daniel L. Bower, M.D., Indianapolis; Theodore Cable, Indianapolis; Manford Ferguson, Connersville, and George W. Wolf, Peru.

The State Senate Committee on Public Health is composed of Thomas A. Hendricks, Indianapolis; William H. Rupert, Brazil; Larry Brandon, Auburn; Frank J. Seng, Jasper; John B. Webb, Indianapolis; Walter Beardsley, Elkhart; and Howard V. Johnson, Mooresville.

### AN EXPERIMENT IN MEDICINE

The Chicago *Tribune* has announced the appointment of a medical counsellor for its large group of employees. The activities of the counsellor are to

be under the control of the Dearborn Mutual Benefit Association, the official organization of *Tribune* employees. This is the first set-up of this sort that has come to our notice, and its operation will be watched with much interest by the medical profession.

It is announced that the physician in charge will not engage in the practice of medicine; rather will it be his duty to advise those employees who come to him for suggestions regarding medical care. The expense of the department will be borne by the *Tribune*.

For some time, it is said, the mutual welfare department of this newspaper has noted that numerous employees have been somewhat perplexed when they or their immediate families become ill, many of them not knowing where to seek competent medical attention. One of the duties of the physician in charge will be to see that the employee is referred to a capable physician.

The seven point program for the medical counsellor is given as follows:

1. To confer with employees who wish to consult him about their personal medical problems or those of their families.

2. To advise, when requested, as to competent physicians in all parts of the city and suburbs and to maintain a list of such physicians, men known to possess not only skill but a high sense of honor and integrity, whose fees will be in accordance with the employee's capacity to pay.

3. To assist in arranging for surgical procedures, hospital accommodations, etc.

4. To act, when the employee or his family desires, as an agent between them and the physician they select. The counsellor's medical knowledge would assure a fair answer to such questions as the necessity for a proposed operation.

5. To cooperate in assuring employees fair charges on the part of physicians, surgeons, hospitals, and nurses.

6. When an employee so requests, to check any diagnosis brought him by the employee, either by conference with the physicians making it or by reference to the symptoms leading to the diagnosis.

7. To advise on group health problems of employees, and inspect working conditions in departments of the *Tribune*.

Dr. Irving S. Cutter, dean of Northwestern Medical School and editor of the *Tribune* health column, is said to be very much in favor of the innovation and is quoted as declaring it to be a valuable adjunct to the many concessions already made to this large group of employees.

We can see no present objection to the proposed plan, since it seems to fit in very well with several of the more modern views of medical care and the benefits are so apparent that in due time it no doubt will be copied by other large employers of labor, both skilled and unskilled. As we have said, the experiment no doubt will attract the attention of medical men over the country.

## THE SURGEON GENERAL REPORTS

Surgeon General Thomas Parran, in his annual report released to the press on January 8, 1939, said that "A greater advance has been made in public health in the United States during the past two years than ever before within a comparable period." He points out that noted developments have followed the assumption of new responsibilities by the Government in matters relating to public health through the Social Security Act, the Venereal Disease Control Act, and the National Cancer Institute Act.

A decrease in the death rate from 11.3 to 10.9 per 1,000 population for the year ended June 30, 1938, over the previous calendar year is reported. Decreases in infant mortality rates and in maternal mortality rates also are recorded, and because these three rates are considered indexes of prevailing health conditions, the reduced rates in these fields indicate a decidedly favorable trend generally.

Leading causes of death in 1937 were diseases of the heart, cancer and other malignant tumors, pneumonia, cerebral hemorrhage and softening, nephritis, accidents (except automobile) and tuberculosis.

One of the most important projects has been the campaign against venereal diseases. During the year, an appropriation of three million dollars was made for the purpose of assisting states to establish and maintain adequate measures for the prevention, control, and treatment of venereal diseases. Provisions were made for training of personnel and for making studies, investigations, and conducting demonstrations designed to develop more effective control measures.

Dr. Parran mentions the completion of the Public Health Service Hospital at Fort Worth, Texas, for the care and treatment of drug addicts, and the fact that the hospital at Lexington, Kentucky, engaged in treating drug addicts and making scientific investigations, operated to full capacity with an average daily census of 949 patients. Mental health work is furthered, marine hospitals and relief stations have cared for 211,121 patients more than the preceding year, merchant seamen constituting the largest class of beneficiaries. Research has been continued in pyretotherapy, focal infections, arthritis and psoriasis. Vitamin D was shown to be valuable in the treatment of psoriasis.

Investigations of public health problems have caused the erection of a group of specially designed structures for the National Institute of Health on a site near Bethesda, Maryland, making available increased facilities for scientific research into the causes and prevention of diseases. The investigative work of the Institute covers an increasingly broad field, Dr. Parran says. Continued attention was directed to control of biologic products, particularly anti-pneumococcic rabbit serum, anti-meningococcic serum, and close supervision over



the stability of arsphenamine. Investigations in industrial fields have not been neglected. Cancer research is being aided through grants-in-aid to selected institutions and the training of research specialists. Already a broad field of investigation is receiving attention.

Considered one of the most important functions of the service is the cooperative work carried on principally by the Division of States Relations. The availability of funds under the provisions of the Social Security Act has made it possible to assist in improving state and local health administration. Whole-time health services in rural areas have been greatly augmented. From January 1, 1935, to December, 1937, there was an increase in full-time health units of 96 per cent. Stimulated by Federal grants-in-aid, the state and local appropriations for public health purposes have increased \$8,000,000 annually.

In considering the national health program, Dr. Parran has this to say: "It is a matter of grave concern that approximately 40,000,000 people in the United States—the lower economic third of our population—are unable to provide themselves with medical care during serious illness. In the country as a whole there is a deficiency of 360,000 hospital beds, including facilities for the care of mental and tuberculous patients." The government feels a definite responsibility for the care of this "third of the population" and despite the improvements in state and local health services, there are large rural areas and many cities in which adequate health service is not yet available. Only a few states have even fairly satisfactory programs for the prevention of mortality from pneumonia and cancer and there still are serious deficiencies in the control of tuberculosis and malaria. Very little is being done by most of the states in the field of mental hygiene, and there is need for a much greater expansion of industrial hygiene activities.

Surgeon General Parran recommends, among other essentials, the establishment in the National Institute of Health of a unit for wider chemotherapy investigations, additional funds under the Venereal Disease Control Act on an increasing scale until an annual appropriation of \$25,000,000 is reached, and the establishment of a neurological institute for laboratory and clinical investigations of mental and nervous diseases.

The public health service has had a big boost in the time that Surgeon General Parran has been the directing head. It has increased so rapidly, and its momentum is now so great that any attempts to apply a brake would be futile. A director with less consideration, understanding, and sympathy than Dr. Parran has for the problems of the physician in private practice might easily make private practice unattractive. A gigantic foundation for state medicine has been laid. What is added thereto may determine the future course of medical practice in our country. The potentialities for good and evil are equally great.

## A DELEGATE'S REPORT

A report that a delegate to the Indianapolis session of our State Association made to his local society has set us to thinking. For years we have attended state meetings, frequently as a delegate, but never did we endeavor to carry back to the local society a very definite picture of what had taken place in our House of Delegates. This report, the report which Dr. A. C. Yoder made to the Elkhart County Medical Society, did just that in such a way as to make it very clear to those who heard it that this particular county medical society was very ably represented in the deliberations of the House.

Dr. Yoder long has been a member of the House of Delegates, and he invariably has been chosen as a member of an important reference committee; hence, it is apparent that his ability has not gone unrecognized by our Association heads. His report covers four typewritten pages (single spaced), and also covers about everything that took place at the two meetings of the House. It even discusses the reports of some of the standing committees, and gives suitable comments.

Dr. Yoder goes into detail in the discussion of the financial picture of the Association, breaking down some of the published figures. Especially does he comment on the suggestion that our state dues be increased. It is his opinion that with the sizable cash balance now on hand, such an increase really is not advisable. However, he does feel that the suggestion of adding additional help to our headquarters staff should be adopted, using some of our available surplus funds for that purpose.

His comment on the report of the Committee on Medical Education showed that he had carefully read and studied that voluminous report, but the high spot in his report was his comment on socialized medicine; it is a classic. He comments on discussions that have taken place in his local society in the matter of various free clinics to which he evidently was opposed because of the manner in which they were conducted. The matter of payment of medical bills, for those in the lower income brackets, calls forth a lucid explanation and a probable solution. In short, the report is complete, highly intelligible, and indicates that this delegate was on the job every minute with eyes and ears wide open.

Frequently THE JOURNAL has directed attention to the importance of selecting delegates to our annual meetings who will attend and who will bring back to their local society a picture of what is going on in medical Indiana. A little more than one-third of our membership is represented at our annual meetings, and it is but fair to the remainder, the stay-at-homes, that they be advised of what is going on in our state. We know that the delegates' reports of the meetings of the American Medical Association are widely read, and by the same sign there is every reason to believe

that a similar report to the "home guard" as to what is done within our own circle will be duly appreciated.

If by any chance you are a delegate from your local society, why not try this plan next year? You may be assured that it will be well received.

## Editorial Notes

### 100% SOCIETIES: BENTON, SULLIVAN AND WHITLEY

Are your dues paid? Are you the reason that your society is not 100% paid up in dues for 1939?

Wednesday, February first, is National Social Hygiene Day. The slogan this year is "Guard Against Syphilis."

THE JOURNAL staff frequently wonders just how important our magazine is to our members, and just how many members look forward to its coming. Because of difficulties in the printer's shop, the December JOURNAL was delayed a few days. Numerous telephone calls from local members and several cards and letters from over the state were received. Some thought they had been overlooked, and asked that a duplicate copy be mailed. It made us feel pretty good!

Ocular refractions in numerous groups of twins, with an occasional triplet group, have been watched over a period of years for the possibility of identical retinoscopies in such cases, but not until recently did we meet with such an experience. The six-year-old twin daughters of a physician were refracted and each gave the same findings—a total hyperopia of two diopters. The twins are identical, and the fact that their refractions were identical was a new experience to us.

At long last the Lake County Medical Society is an incorporated body. After a service of many years as secretary for that society, the secretary's (and your editor's) last official action for the society was to look after the details of this important event. We would suggest that other secretaries who plan a similar procedure be sure that all the i's are dotted and all the t's properly crossed ere the documents are sent to the Secretary of State. It is quite a rite, in Indiana, to become an incorporated body.

The California State Medical Association has adopted a health insurance plan for those with

incomes of \$2,500 or less, covering both sickness and hospital insurance. According to press reports, the insured may choose his own physician and his own hospital. In commenting on this, the Indianapolis *Times* says, "We are glad to see the doctors stepping out boldly in this new direction. Even the American Medical Association's conservative leaders are becoming less openly hostile toward what they call 'socialized medicine.'" This is but another trend of the times and our opinion is that the sooner we meet these changing conditions, the better it will be for the medical profession as a whole.

At the recent session of the House of Delegates of the Indiana State Medical Association, the matter of an increase in Association dues was discussed and it was moved that the matter be referred to the Council, which body is to see to it that various local societies are properly advised in regard to the proposal. Since that time we have had several comments on the subject from various sections of the state, many of our component societies being of the opinion that an increase in dues at this time would not meet with general favor. However, THE JOURNAL is in receipt of the following letter which openly declares in favor of an increase in Association dues:

Please be advised that at a meeting of the Daviess-Martin County Medical Society, December 20, 1938, a resolution was passed to the effect that this Society will be ready to support the State Association on any reasonable increase in dues as seen necessary for the contemplated Post Graduate Program.

A. G. Blazey, M.D., Secretary.

Some time ago, THE JOURNAL commented upon a report from the Indiana State Board of Health to the effect that the water supply of a Lake County town had been found to contain sufficient fluoride to account for a number of cases of mottled teeth among the residents of the community. The Journal of the American Medical Association for December 24th carries an abstract from a public health report concerning a similar situation that existed in an Arkansas city. Some ten years ago this teeth mottling became rather a serious problem, and steps were taken to change the city water supply with the result that the trouble disappeared. When the cause and the remedy are known, there can be little excuse for cause for further complaint in this matter.

Traffic problems ever are on the increase, it seems. Officials of our cities are hard pressed to solve many of these problems, and after a solution is found for some vexatious problem, others are sure to rise. We note that in Indianapolis, the incoming administration is making several changes



in the police traffic department, naming an outside man to be the directing head, a man who will be under the direction of Lieutenant Kreml who has made such an enviable record in his home town of Evanston, Illinois. With the revival of the bicycle craze, another problem arises, one that is bothering the officials of some of our cities. The "bike" addict must be taught that he is amenable to traffic laws as well as the motorist. Night riding without lights has become a decided menace. Some cities have passed ordinances providing for the issuing of licenses for these "two wheelers" for a nominal sum. Thus it seems that the traffic officers of our larger cities have their work cut out for them.

In an address before the third annual convention of the Association of Medical Students, in Philadelphia, Dr. R. R. Spencer, Executive Assistant of the National Cancer Institute, United States Public Health Service, gave voice to several comments that are worth repeating:

"We are going to see methods of science applied to the problems of society and the physician will have an important part in solving these problems. Medicine is a social science; it deals with people and their behavior, as well as the behavior of our heart, stomach, thyroid, liver and kidneys. If science can deal efficiently with the misbehavior of our organs, it should be able to deal effectively also with the misbehavior of the organism as a whole." Later in the same address he said "extension of medical care does not necessarily mean political domination. It should simply mean good organization and I do not believe good organization means regimentation and the killing of initiative." (Italics ours.) Again he states, "The day of individualistic competitive medical methods is rapidly passing. Many diseases formerly taken care of by the individual physician have now become major public health problems. Mental diseases, tuberculosis, syphilis, pneumonia and cancer are included in this group."

In the preface to his thesis on foxglove and some of its medical uses Dr. Withering in 1785 stated that, "It is now about ten years since I began to use this medicine." He was a modest, shining example of one who "exercised his art with caution."

How different this is from so many of the articles published in our medical journals at the present time. What are called preliminary reports are rushed into print relating only a few cases treated and of very short term results. Of course this is to register what some think so important, that which is called priority.

What it is likely to accomplish is to increase the haze of medical therapeutics, to put an ever increasing demand on the pharmacist for untried drugs which will soon linger on his shelves, or

clutter up the cases of surgical supply houses with apparatus of doubtful value.

Perhaps it would be wise to knowingly hold such reports for a year in the publication offices and after that time if the enthusiasm of the author is still ardent to publish them with the reception date which could be counted as evidence of blessed priority.

At the January meeting of the Lake County Medical Society, Mr. Roland Waterson was officially installed as executive secretary of that organization. Lake county thus becomes the first of our component societies to take such a step, and the venture will be watched with much interest by several of the larger groups throughout Indiana. Mr. Waterson has enjoyed a rather extensive experience in organization work, though this is his first venture into the professional field. He was chosen from a group of some forty applicants, several from without the state, and some of whom had had some experience in working with medical organizations. For the present, the society will have its office in the Hammond City Hall.

FEBRUARY 28, 1939, is the deadline for return of Summary Sheets of the A.M.A. Study of Medical Care. These reports will be used by the Bureau of Medical Economics and will be transmitted to the A.M.A. House of Delegates at its next session. If the report from your county society has not been sent in, please complete it and send it in before February twenty-eighth. Summary sheets and reports may be sent to the state headquarters office, 1021 Hume-Mansur Building, Indianapolis, or to the Bureau of Medical Economics, American Medical Association, 535 North Dearborn Street, Chicago.

"When one is reviewing the literature in any medical field, it is rare that he finds anything significant in state or sectional journals." That is the opinion of Dr. L. B. Wilson, director emeritus of the Mayo Foundation, as expressed in his address delivered at the Army Medical School, Washington, D. C., December 23, 1936, and published in the Proceedings of the Staff Meetings of the Mayo Clinic, December 21, 1938. Surely, the editor in charge of this little bulletin has been remiss in going over material for publication or he would not have permitted this affront to pass the blue pencil. It is freely admitted that some of the material published in our state magazines does not materially add to the field of medical knowledge, but we cannot agree that it is a rare thing to find anything worth while therein. Dr. Wilson's whole article contains much good advice to medical men in culling from the vast store of literature the things that are eminently worth while and in confining their reading to this winnowed list, but it is unfortunate that the speaker

included the sentence quoted above. "The chief trouble with the medical treatise," he says, "is that it is outmoded so soon after it leaves the press." That is quite true. Few medical books are authoritative a few years after publication, partly because our state, sectional, and special journals carry up-to-the-minute articles on this or that disease, reporting the findings of medical men throughout the country, giving bedside observations on the utility of certain treatments. How else do we learn of what other physicians are doing? Just what is medical education, and how do we make progress? By exchange of ideas and personal experiences. And how is this brought about? Through medical society meetings, first, and then through the medical press. All physicians cannot attend meetings of their medical societies, but all progressive physicians do keep abreast of the times through the reading of medical literature. This is not a defense of our JOURNAL, for we believe that our magazine needs no defense. Its prime purpose is to serve as a medium of reflection of medical opinion for Hoosier medicine, and in reflecting that opinion we confidently believe that we are materially adding to the store of medical knowledge. Recent medical books contain numerous references to articles published in state journals. One encyclopedia cites hundreds of articles that have appeared in state association magazines. And this JOURNAL has published numerous articles from Mayo men throughout the years, including one by Dr. L. B. Wilson, himself, 'way back in 1914. We wonder if he really believes that statement quoted at the beginning of this paragraph.

More than one hundred sixty secretaries and presidents of county medical societies, and councilors and officers of the Indiana State Medical Association attended the fourteenth annual secretaries' conference at the Indianapolis Athletic Club, Sunday afternoon and evening, January twenty-second. It was the general opinion of all those in attendance that this was the most interesting, worth while and valuable secretaries' conference in the history of the State Medical Association. Dr. A. M. Mitchell of Terre Haute was re-elected chairman of the conference. The principal out-of-state speakers were Dr. Walter E. Vest of Huntington, West Virginia, (president of the Southern Medical Association and member of the Committee of Seven of the A. M. A.) who talked on "The National Medical Situation"; F. K. Helsby of Kansas City (executive secretary of the Jackson County Medical Society) whose subject was "Hospital Insurance," and Dr. Carl F. Vohs of St. Louis (president of the Northwest Regional Conference) who discussed "A Medical Plan for All the People." A number of the members of the House of Representatives and Senate health committees attended the conference along with Lieutenant Governor Henry F. Schriker who made a short talk and paid special tribute to the medical profession.

The serious work of a legislator is sometimes relieved by a humorous incident. Recently a physician member of the legislature was provided amusement by the following letter:

Dear Dr. ———:

In the past it has been customary for Chiropractors and others of the healing professions to extend courtesies to our legislators. May I at this time do likewise, and offer you my services as a Chiropractor, free of charge and without any obligation whatsoever, during the time our state legislature is in session.

This legislative session without doubt will be strenuous, and your work will be made easier, and your efforts more effective, if your nervous energy can be kept at top notch and your body kept in condition for proper relaxation and rest at the required time. I welcome you as my guest for this service at this time.

Very sincerely yours,

Dr. ———.

This letter is sent to all members of the House and Senate. My office is conveniently located. . . .

If a sufficient number of the legislators take advantage of the attention to insure their "proper relaxation . . . at the required time," then there will probably be more than the usual number of snoozers in our legislative halls. Surely such attention should guarantee effective and worthwhile legislation. And of course there is the not too remote possibility that a legislator or two might feel inclined to return a favor by supporting a bill to establish a chiropractic licensing board. There's nothing like free samples, we're told!

## COMING EVENTS!

Perhaps you think it is early to plan to attend a convention next October, but we want to remind you that the convention this year will meet in Fort Wayne, October 10, 11, and 12.

In 1910 when the Indiana State Medical Association met in Fort Wayne, the registration was 450; in 1916 only 381 members attended; but in 1930 there was a registration of 1,115—the highest registration for any Indiana State Association meeting up to that time!

This year the registration committee is preparing to give swift and accurate attention to 2,000 registrants and for that purpose arrangements already have been made for an adequate number of girls to care for the registration desks, and numerous Boy Scouts to act as messengers and pages during the convention.

When such details as these already are taken care of for next October's convention, you may know how efficiently the Fort Wayne physicians are working in order to entertain the Indiana State Medical Association in its biggest and best convention. Mark your calendar now—October 10, 11, and 12, 1939.

J. W. BOWERS, M.D., Chairman,  
Registration Committee.



## President's Page

Syphilis ranks among the foremost, if not actually the first, of all causes of death which affect mankind. It is estimated that from 8 to 12 per cent of all deaths are caused by syphilis. Most of these deaths are not reported as such, but are statistically charged against heart disease, apoplexy, nephritis, hepatitis, etc.

The economics of syphilis lead us to figures of enormous proportions. Syphilis is among the most costly of all diseases, not only to the person who has it but also to the nation that tolerates it. Syphilitic men lose at least 21 million working days every year. Allowing for this loss of work at four dollars per day, the annual loss amounts to \$84,000,000. It has been estimated that the annual bill for the treatment of syphilis in New York State alone is more than 23 million dollars. Our annual bill to care for the syphilitic blind adds another ten million dollars to the total. Only 2 per cent, approximately, of untreated syphilis results in some form of insanity, but in Indiana the annual cost for institutionalizing the syphilitic insane probably exceeds a half million dollars. In other words, one of our large state mental institutions might close its doors if syphilis were removed as a factor in their admissions. Wisconsin, with a fairly effective program for the last 20 years, has found that it has paid them not only in dollars and cents but that its citizens are more sound both mentally and physically. In 1916 twelve per cent of the admissions to insane hospitals in Wisconsin were due to syphilis, whereas in 1936 only five per cent were syphilitic—a saving of several hundred thousand dollars. When we consider the 160,000 persons with cardiovascular syphilis and the 40,000 annual deaths resulting from such infections we see that we cannot accurately estimate the total economic loss due to this disease.

The control of syphilis, like any other infectious disease, rests upon three cardinal principles: 1. Reasonably early and accurate diagnosis. 2. Early and proper treatment. 3. Basic epidemiology. All of us have the ability to execute these principles daily in our practice. We must utilize to the utmost serological facilities available for the detection of unknown syphilis. The following groups probably should be subjected to routine serological examinations: (1) All pregnant women, (2) All patients of the hospitals and private physicians, (3) All marriage license applicants, (4) Employees, (5) Institutional inmates, and (6) College and University students. If these groups were examined along with the applicants for life insurance, we would uncover nearly all of the unknown infections.

Treatment must be continuous and adequate. Cooperation with health authorities on the recalcitrant patient is imperative. An earnest effort should be made to obtain the source of infection, as well as the identity of the people whom the patient has exposed. Health officers and competent epidemiological workers will help place contacts under treatment.

Venereal disease control is a national as well as state program. Syphilis recognizes no boundary lines, state or county. Our program for the control of syphilis should originate locally, preferably under the direct guidance of the local medical society. They should, however, coordinate with state and national programs.

Stokes has written the following axioms for the guidance of the private physician in the movement for venereal disease control:

1. Explain to the patient the nature of his disease at first consultation.
2. Specifically instruct him regarding infectiousness.
3. Give him something to read if he can grasp it, and have something at hand that he can grasp.
4. Take time, use words of one syllable, speak the vernacular.
5. Know what the state and city are doing for venereal disease patients. If they are doing better than you, improve yourself.
6. Report your cases. If a patient leaves you, know to whom he goes and send a letter of findings. If he fails to report, notify the health authorities.
7. Utilize and appreciate a good state laboratory. (For your indigent and semi-indigent patients.)
8. Call the state or city in to help you with the irresponsible patient.
9. Place education of the patient ahead of enforcement when possible.
10. Insist that the state shall keep its place in medical practice and fulfill its obligation by serving only the indigent.
11. Think socially as well as individually, in preventative terms, about the control of sexual disease and sexual problems.

We must take the initiative in the control of these diseases. The stage is set, help is available, and it's our job.

*E. M. Van Buskirk.*

## PROPOSED PROGRAM FOR MEDICAL CARE FOR FARM SECURITY ADMINISTRATION CLIENTS IN INDIANA

The representatives of the Farm Security Administration have discussed with the Executive Committee of the Indiana State Medical Association the problem of the medical care of the indigent and low-income farm groups who are the responsibility of the Farm Security Administration.

The members of the Executive Committee fully appreciate the difficulties of this problem and the sincerity of the Farm Security Administration's representatives in trying to provide properly for the medical needs of their clients. The following program, which has been agreed upon, is recommended by the Executive Committee to the various county medical societies for consideration. The Committee believes this program is in accord with the ideas expressed by the House of Delegates of the American Medical Association in resolutions passed at its meeting held in Chicago on September 17, 1938, and also with the special report of the committee of the Indiana State Medical Association which was adopted by the delegates of the State Medical Association.

### A. The Executive Committee of the Indiana State Medical Association recommends:

#### I. Ordinary Medical Care

a. That the county medical societies of Indiana will encourage the physicians in their respective counties to furnish medical services to the clients and their families of the Farm Security Administration. The services to be rendered in accordance with the plan submitted under Par. I, Section d. The medical services will include ordinary home and office care, obstetrics, immunization and drugs ordinarily provided by that physician.

b. The county medical society will act as or designate a trustee who will be custodian of the funds deposited by the clients of the Farm Security Administration. The trustee will furnish ample personal or surety bond.

c. The amount of funds per family will be determined by the size of the family and the ability of the client to pay. The income of the client will be determined by his anticipated income as indicated in his farm and home plan. These facts will be submitted in detail to the County Medical Society or its representative.

d. The funds will be deposited by the clients with the trustee. The trustee will use these funds for payment of medical services and drugs furnished by the physician. The trustee will divide the money in twelve equal amounts for monthly disbursements. The physician rendering service will submit to the trustee a statement of services rendered to the members of the group and their families. These statements will be reviewed and approved by the County Economics Committee of

the Medical Society and paid by the trustee on a pro rata basis in accordance with funds available. In any month that there is more funds available than necessary to pay outstanding bills, a surplus fund will be created for that year. This surplus can be used to adjust any bills not paid in full during the year. In the event there is a surplus remaining at the end of the year after all bills have been met in full, it will be credited to the account of the client.

#### II. Vaccines and Drugs

It is recommended that physicians treating clients of the Farm Security Administration will make every effort to secure all expensive drugs and vaccines from state, federal or other available sources without cost. In the event expensive drugs or vaccines are not available without cost, physicians will endeavor to secure these for the clients at a minimum cost. In this event expensive drugs or vaccines will be paid for by the client.

#### III. Development of Plan

The officers, councilors and committeemen assist the county medical societies in presenting and developing this plan with their members.

### B. The Farm Security Administration will:

I. Have its representatives present to the county medical societies the general program of the Farm Security Administration and the proposed agreement with the county societies for the care of their clients. The State Medical Association will assist in any way possible in presenting this plan to the county societies. Representatives of the Farm Security Administration will advise the clients of the medical care program of the County Medical Society.

II. When the client has elected to provide himself and his family with this medical care program, a representative of the Farm Security Administration will take an application from the client for a loan in the amount agreed upon. When the loan is approved and money received the client will deposit the funds with the designated trustee and the County Society will be notified. The trustee at that time will furnish the client with a list of cooperating physicians. The funds deposited with the trustee will be for the payment only of medical care as previously agreed upon.

III. The client may use as his physician any member of the County Medical Society who is participating in this program. At all times the client will have a free choice of physicians.

IV. It is thoroughly understood by the representatives of the Farm Security Administration that such a program is available only to those low-income farm families who are its responsibility.



## AN IMMUNIZATION PROGRAM

Editor's Note—An article similar to this was published in the December **Forty and Eighter Magazine** under the authorship of Milt Campbell. This program was put into effect in Columbus, Indiana, last October, and has been well accepted by the public and by the profession. Since it is a continuing piece of work, it is too early to evaluate the results. Dr. H. J. Norton, of Columbus, sponsor of the plan in that city, believes that the Indiana Plan when put into effective use, as in the instance described in this article, is organized medicine's best advocate. He believes that the people want this sort of a program, and that they want the continuance of the patient-physician relationship. The 40/8 national plan is identical in operation as described in this article.

The following plan for diphtheria immunization was devised to translate into action the diphtheria immunization plan as stated in the Indiana Plan of preventive medicine. Its success depends upon full cooperation among the interested groups in the community:

1. Local public health officials.
2. The county medical society.
3. The local American Legion organization.
4. The local public school system.

It assumes that the necessary biologicals will be supplied by the State Division of Health for use among the underprivileged upon assurance of cooperation between the above mentioned groups being certified to the State Division of Health and upon request from the local Public Health Authority. It assumes that the local county medical society and the local American Legion organization will sponsor the project, and see that it is carried to completion.

Its objective is the establishment of a continuous, sustaining program for diphtheria prevention that will reach all children in the community, regardless of economic status. It is devised to achieve this objective through the agency of the family physician, thus maintaining free choice of physicians for the patient. It is expected that its application to the community will, in the course of time, establish diphtheria immunization as a community custom and result in each child being immunized against diphtheria at the proper age of one year, and that he will again be checked for immunity or re-immunized upon entry into school.

The method of immunization is left to local choice. Alum toxoid may be furnished for the underprivileged, and may be used in either single or multiple doses.

The plan contacts the parents by way of double postal cards, and by way of cards sent home by children in the first grades of school. These cards should bear identifying serial numbers. The Board of Health mails the first card to the parents of each child when, according to the birth records, the child has reached the age of ten months. The outgoing half of this card is as follows:

Dear Parents:

Years of experience by health authorities and doctors have proven that Diphtheria and Smallpox can be prevented by simple, harmless, and inexpensive preventive treatment. The best time for your child to be immunized against Diphtheria is not later than his first birthday.

We urge you to take \_\_\_\_\_ to your family doctor at once. Please give him the other half of this postal card so that a record of the treatment may be kept for your benefit.

Sincerely yours,

Secretary, Board of Health,  
Columbus, Indiana.

The school doctor, or other school agency, sends home with each first and second grade student a mimeographed letter, as follows:

Dear Parents:

Years of experience by health authorities and doctors have proven that DIPHTHERIA and SMALLPOX can be prevented by simple, harmless and inexpensive preventive treatment. The best time for your child to be immunized against DIPHTHERIA and SMALLPOX is not later than his first birthday. If this has not been done, it should be done now, or as early in his school career as possible.

The Public Schools are interested in preventing contagious diseases of all kinds. The two mentioned, DIPHTHERIA and SMALLPOX, are those most surely and easily stamped out. With the cooperation of parents in this matter, Columbus need never fear an epidemic of either DIPHTHERIA or SMALLPOX through the schools.

If \_\_\_\_\_ has been protected against either \_\_\_\_\_DIPHTHERIA or \_\_\_\_\_SMALLPOX, please check accordingly and return this letter to school.

If \_\_\_\_\_ has not already been immunized against DIPHTHERIA or SMALLPOX, we urge you to take \_\_\_\_\_ to your family doctor at once.

Should it be impossible or impractical for you to do this because of:

- lack of finances
- unable to bring child to doctor
- religious objections

please check the reason and have \_\_\_\_\_ bring this letter to school as soon as possible.

Sincerely yours,

School Physician.

The return half of the first postal card, addressed to the Board of Health is as follows:

Statement of Immunization:

I hereby certify that I completed immunization of

-----  
-----for DIPHTHERIA, -----for SMALLPOX, on-----

Signed -----M.D.

Should it be impractical or impossible for you to do this because of:

- lack of finances
- unable to bring child to the doctor
- religious objections
- death of child

please check the reason and place this card in the mail. Otherwise, give it to your doctor when you apply for treatment.

In the schools a check is kept and a record obtained of the children immunized, and those not

immunized. School pride is inculcated in gaining cooperation; competitive spirit is inspired and perhaps prizes are given for the room attaining the highest percentage of immunized children. A blank certificate of immunization is given, like this:

Statement of immunization:

I hereby certify that I completed immunization of \_\_\_\_\_  
 for DIPHTHERIA on \_\_\_\_\_, 19\_\_\_\_  
 for SMALLPOX on \_\_\_\_\_, 19\_\_\_\_  
 Signed \_\_\_\_\_, M.D.

This is given to each child and made a part of his school record which is not considered complete until a completed certificate of immunization is furnished.

The children of families able to pay for the service are expected to go to their family doctor for this service, who will then complete the statement of immunization, and in the case of the return card, this will be mailed to the Board of Health where it will be recorded and filed; in the case of the school child, the statement of immunization will become a part of his school record, and his name will be certified to the Board of Health as having been properly immunized.

On the first return card and the school card, provision is made for certain contingencies:

*"Lack of Finances."* From the returned cards received by the Board of Health, and from the returned school cards, a list of the underprivileged is obtained. (The school supplies the Board of Health with the list of names obtained upon its returns.) The Board of Health then addresses the second card to this list. The outgoing portion of the card is as follows:

Dear Parents:

To prevent DIPHTHERIA, ALL children must be immunized. Your Board of Health and the Doctors are making it possible for you to protect your child.

Take this card to the doctor of your choice among the doctors listed hereon, and he will immunize your child WITHOUT CHARGE.

The amount of toxoid needed for use among the "financially unable" may be estimated by applying the percentage of the underprivileged in the community to the school population and the birth returns; or it may be arrived at on a basis of previous experience. The county medical society evidences its approval and willingness to participate, to the Board of Health, which then obtains the needed supplies from its usual sources. This material, furnished to properly qualified physicians for this purpose upon their request, is used by them in their offices as these patients apply. A check-back upon the proper use of this material is supplied by the return statements of immunization.

In the contingency of "Unable to bring the child to the Doctor," transportation is supplied by the American Legion.

In the contingency of "Religious Objections," whatever educational facilities are available are brought to bear. The services of the public health nurse could well be applied.

The advantages of the plan are:

1. Full coverage of the population without economic discrimination.
2. Maintenance of proper patient-physician relationship.
3. A continuous program operating through cooperation of the agencies responsible to the community for this service. The avoidance of "drives," "campaigns," and wasteful, sporadic efforts.
4. Community education by demonstration in the value of medical care and preventive medicine; professional education in productive cooperation between the medical profession and public health agencies.

This plan is flexible, and may be modified in its details to fit the community to which it is being applied. Its fundamental tenet is progress in medical care in a manner that maintains the American way of living.

## OTHER IMMUNIZATION PROGRAMS BEING CONDUCTED IN CARRYING OUT "THE INDIANA PLAN"

BUREAU OF MATERNAL AND CHILD-HEALTH,  
 INDIANA STATE BOARD OF HEALTH

Since the adoption of The Indiana Plan for extending public health services in Indiana, there has been an increasing number of county medical societies which have carried out immunization programs against diphtheria and smallpox. During the past year, approximately twenty county medical societies have conducted these diphtheria immunization programs. In each county the method of procedure followed was different, as the local profession adapted the program which would best fit the needs of their local community. Most counties have carried out the program through the cooperation of the Bureau of Maternal and Child-Health of the Indiana State Board of Health, in the form of obtaining newspaper and other publicity material, and of being furnished biological supplies from the State Board of Health.

Several counties have carried out programs which have been planned, administered, and financed through local professional and civic organizations. An example of this type of program is shown in the following descriptive report received from Dr. E. H. Brubaker, Secretary of the Carroll County Medical Society.

"The Carroll County Medical Society started a program of immunizations for diphtheria in 1932. In 1933 Schick tests and smallpox vaccina-



tions were added to the program. In 1934 diphtheria immunization and smallpox vaccinations were again offered, and in 1936 and 1938 diphtheria immunization, Schick tests, and smallpox vaccinations were offered. The program is open to all ages, and we make a special effort to get infants and preschool age groups protected. The work is done at the school buildings. The price is \$1.00 per child for diphtheria, 50 cents for smallpox vaccination, 25 cents for the Schick test. In case the Schick test is read positive, a charge of \$1.00 is made for the dose of toxoid given when the Schick test is read. These prices are per child, not per shot. The township trustees appropriate a sum of money, roughly graduated according to school population in each township, toward the expense of the biologics used and for that help in buying the biologics, the doctors agree to immunize all who do not pay. No publicity is given the free work, but this phase of the program is handled quietly by the teachers, whether it involves school children or those under school age. The children are even allowed to bring their money in payments, if more convenient.

"No child is immunized or vaccinated unless the parent gives us consent. Mimeographed 'Request Blanks' are sent home with each school child and the child is asked to have his parents sign or state on the back of the slip just why he does not sign it. Thus, we now sort out the children who are already protected, the children whose parents will not give consent because they disapprove and the children whose parents would like for them to be protected but who do not have the money. Preschool children and infants are handled by private conference, when parents bring the children to school or when they inquire about the program in advance. In case parents do not have the money, the 'Request Blank' is again sent home with the child, and the parents are asked to sign it anyway.

"Since the program began in 1932, 3,448 persons have had the shots for diphtheria; 1,890 have been vaccinated for smallpox, and 2,353 have taken the Schick test, of whom 467 were read positive and given an additional dose of toxoid at once and advised to be re-Schick tested. The policy of the Medical Society is, if in doubt read a Schick test as positive and give more toxoid. In 1932 we used toxin-antitoxin; in 1934 and 1936 we used alum-precipitated toxoid, and in 1938 we used toxoid in two doses.

"In 1938 we gave 387 persons toxoid, 489 persons smallpox vaccine, 329 persons Schick tests, of whom 87 were read as positive and given an additional dose of toxoid. A total of 863 persons were served, of whom 170 were under school age; 667 were school age; and 26 adults. Approximately 2% of the preschool group reacted with a positive Schick test, 9% of the school group, and 13% of the adults were positive. Although the

preschool age group is growing, we still do not get as many out as we would like. However, this group is growing as we did only 133 preschool age two years ago.

"One 'Request Blank' came back to a teacher with the following written on the back, 'No shots for my child. I believe in Jesus Christ. Amen.' Only one reply of this type was received in a school population of 3,040 children, and this family had just moved into the county and was unfamiliar with the program. We received many answers of this character in 1932. One little first grader with a stiff upper lip walked up to the doctor and said, 'I ain't goin' to cry, but take it easy, Doc, take it easy.'"

The following narrative report describing the diphtheria immunization program in Franklin County has been received from Dr. E. M. Glaser, Secretary of the County Board of Health.

"We have worked and completed our program in the town of Brookville, Indiana, and in addition have given the first shot of toxoid and the Schick tests in four townships outside of Brookville. These immunizations are being conducted at the schools, and great effort is being made to encourage the parents to bring in all children of the preschool ages.

"In the townships where we have worked, we have had the wholehearted cooperation of the teachers and the township trustees. In one township, namely Butler, the trustee has arranged for the bus driver to bring the pupils and preschool children to the central school building in which we work. In this way we are able to immunize 99% of the children of school age of this township.

"An effort is being made to immunize the children of each township of the county. Thus, we had only one township to date which has refused to cooperate in this program. To date 968 of the school children and those of preschool age, have been immunized against diphtheria, and 176 Schick tests have been given. Positive Schick reactors are given an additional dose of toxoid."

#### POSTGRADUATE COURSES IN OBSTETRICS

Postgraduate courses in obstetrics offered by the Indiana University School of Medicine, the Indiana State Medical Association, and the Bureau of Maternal and Child Health of the Indiana State Board of Health, will be conducted each two weeks, starting February first and continuing until May first.

There are a few vacancies remaining during the months of March and April. Application to attend the courses may be made direct to the Postgraduate Committee of the Indiana State Medical Association, or to the Bureau of Maternal and Child Health, Indiana State Board of Health.

## *Under the Capitol Dome*

Dr. J. T. Oliphant of Farmersburg was re-elected president of the Indiana State Board of Medical Registration and Examination at the annual meeting January 10. Dr. N. E. Harold of Indianapolis, was re-elected president, Dr. J. W. Bowers of Fort Wayne, re-elected secretary, and Dr. W. C. Moore of Muncie, re-elected treasurer.

The state board of medical registration and examination has re-instated the license of Dr. Sidney J. Eichel of Evansville. The action was taken Nov. 29, 1938.

The annual meeting of the state board of medical registration and examination was held Tuesday, January tenth. The session was conducted in the Hotel Lincoln in Indianapolis.

### **COST OF CARING FOR INDIANA'S MENTAL DEFECTIVES**

Indiana's bill for the care and treatment of the insane and mental defectives last year amounted to \$2,550,061.36, according to a governmental finance report completed by Richard E. Strahlem, statistician in the state division of accounting and statistics. This amount was the state's own expenditure, not including amounts spent by counties or other governmental units.

The report also showed the expenditures by the ninety-two counties for the year 1937 (local figures run one year behind those of the state in the statistical reports). The counties spent a total of \$165,460.71 for care of mental patients during the year, which was less than the \$168,127.17 expended during the preceding twelve months period.

The approximate ten state agencies dealing in various angles of conservation of public health, including the state board of health, boards such as the barbers, beauty operators, and the like, spent a total of \$515,586.24 during the last fiscal year in the operation of their various activities, the statistician's report showed. In addition another sum of \$320,885.07 was spent by the state on parks and recreational activities, work which has a definite, if indirect, bearing upon public health.

Disbursements by the ninety-two counties for health commissioners, nurses, and miscellaneous health activities (for 1937) was \$379,820.36, as compared with the preceding year's expenditure of \$248,919.95, while maintenance of hospitals cost the counties a total of \$1,761,179.97 as compared with \$1,762,255.43 during the year 1936.

For sewage and garbage disposal the cities of Indiana spent \$1,523,429.01 during 1937, an increase over the expenditures for the same purpose during the preceding year when the cost was \$1,-

268,877.91. Hospitals and cemeteries cost the cities the sum of \$807,104.52, compared to \$677,692.72 the year before. For city boards of health and public nursing the bill was \$798,390.03, a slight increase over the \$709,137.43 for the preceding year, while the construction of health and sanitation units cost the cities \$331,378.81, an item costing \$1,699,237.42 in 1936. Cities spent \$1,341,126.51 for operation of parks and playgrounds. In 1936 they spent \$1,-350,698.

Indiana towns spent \$10,385.64 for salaries of health officers; \$123,618.86 for operating expenses of garbage and sewage disposal systems, and \$25,582.31 for operation of cemeteries. The total health and sanitation bill for the towns was \$159,586.81, as compared with the total of \$181,266.89 in 1936.

### **"ONE OUT OF TEN"**

One person out of every hundred in the United States is infected with syphilis and nine more out of every hundred will acquire syphilis at some time in life if present rates prevail, Miss Lida J. Usilton, Senior Statistician of the United States Public Health Service declared January 18, at a meeting of the New York Chapter of the American Statistical Association at the Hotel Woodstock, in New York City.

In discussing the subject, "Do 10 in 100 Have Syphilis?", Miss Usilton stated: "The estimate on the number who have acquired syphilis is 1 in 100. The estimate on the number who under existing detection and treatment facilities will acquire syphilis at some time in life is 10 in 100. This has been aptly expressed as 'syphilis strikes one out of every ten adults.'"

The Public Health Service arrived at its figures through studies of authorized treatment sources in 1936-37. The surveys included records from 8,700 physicians and 300 clinics, hospitals, and institutions. These treatment centers served approximately six million people.

Highest rates for acquiring syphilis are found in the group 20 to 24 years of age. The figures for this age level show an annual attack rate of 5.97 per 1,000 population.

The next highest group is that from 25 to 29 years of age, with an annual attack rate of 5.24 per 1,000. Rate for 15-19 years of age is 2.66 and from 30-34 is 3.80 per 1,000. Computations in this summary, as outlined by Miss Usilton in her presentation to the statisticians of New York do not included inherited syphilis.

The federal Health Service surveys found no syphilis acquired under ten years of age and rates for people above 50 were found to be extremely low, varying from 0.49 at 55 to 64 years down to 0.17 for the 70-79 age group.

The total number of people at all age levels who have acquired syphilis was computed at 1,407,180. This means an average of 11.46 per 1,000 for all age groups based on the 1930 census figures.



## Deaths

CHARLES L. ACKERMAN, M.D., of Brownstown, died of pneumonia, January fourth. Dr. Ackerman was seventy-two years old. He was a member of the Jackson County Medical Society, the Indiana State Medical Association and the American Medical Association. Dr. Ackerman graduated from the Kentucky University Medical Department, Louisville, in 1903.

JAMES EDWIN PARKER HOLLAND, M.D., of Bloomington, physician at Indiana University for more than twenty years, died in an Indianapolis hospital, December fourth, after a short illness. Dr. Holland graduated from Indiana Medical College, School of Medicine of Purdue University, in 1906. He did postgraduate work in New York and in Vienna, and specialized in ophthalmology. He was seventy-two years old. Dr. Holland was a member of the Monroe County Medical Society, the Indiana State Medical Association, and was a Fellow of the American Medical Association and of the American College of Surgeons.

JAMES F. LEWIS, M.D., of Dupont, died January fourth, aged eighty-two years. Dr. Lewis graduated from the Medical College of Ohio, Cincinnati, in 1875.

CASWELL H. JENNINGS, M.D., of Wheatland, died December twenty-fifth, aged sixty-seven years. He succumbed to a heart attack that occurred while he was visiting with friends. Dr. Jennings graduated from the Medical College of Indiana, Indianapolis, in 1895.

MARTHA V. THOMAS, M.D., of South Bend, died December seventeenth, aged eighty-three years. She had practiced in South Bend since 1896. Dr. Thomas graduated from the Hahnemann Medical College, Chicago, in 1896.

ELMER D. SHADDAY, M.D., of Montpelier, died December nineteenth, aged sixty-five years. Dr. Shadday had practiced in Montpelier for twenty-nine years and had served as county health officer. He was a graduate of the Kentucky School of Medicine, Louisville, in 1901.

EMIL WINTER, M.D., of Indianapolis, died December eighteenth, aged fifty-two years. He graduated from the Eclectic Medical College of Ohio in 1907 and had practiced in Indianapolis since 1908. He served several years as deputy coroner of Marion County and had served in the medical corps of the U. S. Army during the World War.

He was a member of the Indianapolis Medical Society, the Indiana State Medical Association, and the American Medical Association.

WILLIAM V. STANFIELD, M.D., of Attica, died January sixth, aged sixty-two years. Dr. Stanfield graduated from the Medical College of Indiana, Indianapolis, in 1904.

## News Notes

Miss Madge Fair of South Bend and Dr. Bryce P. Weldy of Hartford City, were married January first in Muncie.

Miss Esther Lipsey, of Detroit, and Dr. Paul Merrell of Indianapolis were married in Indianapolis, January seventh.

Dr. O. R. Lynch of Peru has been appointed director of the Wabash Valley Sanitarium at Lafayette.

Dr. John M. Grimes has accepted a position at the Weston State Hospital, Weston, W. Virginia, where he went in December. Dr. Grimes had served as assistant physician on the staff at the Logansport state hospital since September, 1937.

Dr. Robert C. Anderson has been appointed assistant superintendent of the Muscatatuck Colony at Butlerville. Dr. Anderson has been with the Kenilworth Sanitarium at Kenilworth, Illinois.

Dr. Herbert A. Schiller has announced the opening of his office for the practice of obstetrics and gynecology at 428 Sherland Building, South Bend.

The sixty-eighth annual meeting of the American Public Health Association will be held in Pittsburgh, Pa., October 17 to 20, 1939, with headquarters at the William Penn Hotel.

Miss Josephine Kann of Fort Wayne and Dr. Maurice Rothberg, of Fort Wayne, were married December eighteenth, in Kendallville, at the home of the bride's uncle and aunt.

Dr. W. C. Stover of Boonville is remodeling his office to include a completely equipped laboratory, a surgical room for minor surgical work, and an x-ray department.

Dr. F. D. Allhands of Wingate has announced his retirement from active medical practice.

Dr. William Sennett, who has been practicing at Macy, is now associated with Dr. T. E. Carneal of Winamac.

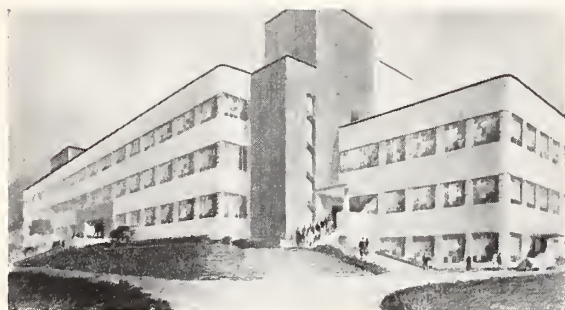
Announcement has been made of the marriage of Miss Nellie McCloskey and Dr. E. H. Brubaker of Flora.

Miss Mary Lutes of Bloomington and Dr. C. O. Almquist of Gary were married recently.

Dr. John T. Kime of Petersburg celebrated his fiftieth anniversary in the practice of medicine in January. Still in active practice, Dr. Kime is seventy-two years old and is president of the Pike County Medical Society.

Dr. John R. Neal of Springfield, Illinois, has been appointed dean of the Cook County Graduate School of Medicine. The appointment was announced by the Board of Trustees following their annual meeting in December.

Dr. Joseph L. Baer of Chicago, professor of obstetrics and gynecology of Rush Medical College, will be the guest speaker before the Tippecanoe County Medical Society at Lafayette, March fourteenth. Dr. Baer's subject will be "Prolonged Labor." Interested physicians are invited to attend. This will be the regular dinner meeting of the society, and the exact time and place of the meeting will be announced in the March JOURNAL.



The new research building of E. R. Squibb and Sons at New Brunswick, N. J., was formally dedicated last October. The building was erected at a cost of \$750,000 and houses the Squibb Institute for Medical Research.

The Radiologic Review & Mississippi Valley Medical Journal has changed its name to Mississippi Valley Medical Journal (Incorporating the Radiologic Review) beginning with its January issue.

Dr. Ernst L. Schaible has taken over the duties of mayor of Gary, and has resigned his position as chairman of the obstetrical department of the Gary Methodist hospital. Dr. James M. White has been appointed to fill Dr. Schaible's place on the hospital staff.

The fifth annual meeting of the Mississippi Valley Medical Society will be held at Burlington, Iowa, September 27, 28 and 29, 1939.

The first American Congress on Obstetrics and Gynecology will be held in Cleveland, September 11-15, 1939. There is much interest in the forthcoming congress, and it seems probable that there will be a large attendance. Twenty allied organizations are member organizations of the American Committee on Maternal Welfare. Tentative program and any other desired information may be obtained from the Central office, 650 Rush Street, Chicago, Illinois.

Dr. Grace Kaufman who has been in private practice in Evansville, for the past four years, specializing in anesthesia, is taking a leave of absence to spend a year in study and research in anesthesia at Massachusetts General Hospital in Boston.

#### INDIANA UNIVERSITY POSTGRADUATE COURSE

The Indiana University School of Medicine will hold its Annual Intensive Postgraduate Course April tenth to fifteenth, inclusive. The 1939 course will emphasize those features which have proven most valuable in the preceding courses.

The morning will be devoted to clinical presentations and bedside instruction. At eleven o'clock each day attending physicians will assemble in the auditorium of the Medical School to hear and participate in round table discussions on subjects of interest to the man in general practice.

The afternoons will be devoted to lectures and clinico-pathological conferences. Speakers of national reputation will address the evening meetings. Physicians throughout the State should plan now to attend. Full program will appear in next month's Journal.



## LONG SERVICE SECRETARIES RETIRE

*Dr. Shanklin**Dr. Allen*

After twenty years of service as secretary of the Lake County Medical Society, Dr. E. M. Shanklin of Hammond has retired from those duties. He first served as secretary for the Lake County society in 1912 and served continuously for eight years. In 1927 he again took the office of secretary and has served continuously through 1938. Dr. Shanklin is succeeded by Dr. Harry Brandman of Whiting. The Lake County Medical Society held a testimonial dinner meeting, January twelfth, in honor of Dr. Shanklin.

Dr. Joseph L. Allen of Greenfield has been secretary of the Hancock County Medical Society since 1928, retiring this year. Dr. Allen initiated the idea of having the county society's stationery carry the names and addresses of every member of the society. Dr. Allen is succeeded by Dr. James R. Woods of Greenfield.

The Sectional Meeting of the American College of Surgeons will be held in Indianapolis, with headquarters at the Claypool Hotel, March 22, 23, and 24. Members from Illinois, Indiana, Iowa, Michigan, Ohio, and Wisconsin will attend. The Indiana State Executive Committee includes W. D. Gatch, M.D., chairman; E. M. Shanklin, M.D., secretary, and E. B. Ruschli, M.D., counsellor. The executive committee on arrangements includes Drs. C. H. McCaskey, Cleon A. Nafe, and J. K. Berman, all of Indianapolis.

## MOTION PICTURES AVAILABLE

The American Medical Association has a number of motion picture films for loan, among which are several on Physical Therapy. Borrowers are expected to pay the expense both ways, and to use due care in running the films. No other expense is involved.

These films include the following subjects: Aids in Muscle Training, Occupational Therapy, Underwater Exercises, Massage, Contraction of Arteries and Arteriovenous Anastomoses. Other available films are: Effects of Heat and Cold on Circulation of Blood, Effects of Massage on Circulation of the Blood, Therapeutic Exercises for the Shoulder Joint Following Dislocation, and Treatment of

Compression Fracture of the First Lumbar Vertebra. Detailed information in regard to the films may be obtained by writing to Dr. Thomas G. Hull, Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

## MEDICAL HISTORY GROUP TO BE FORMED

A group of persons interested in the history of medicine are forming a local branch of the National Association of the History of Medicine. The first meeting will be held at 8:00 p. m., February 15th, in the lecture room of the Eli Lilly Company, in the Alabama Street Building. Physicians, librarians, and interested laymen are invited to join the group. The membership fee will be nominal.

There will be a short program on the night of February 15th and it is probable that there will be not more than four or five meetings per year.

Mrs. Irene M. Strieby, librarian of the Eli Lilly Company, has consented to act as secretary pro tem.

## ART TELLS HISTORY OF AMERICAN MEDICINE



"Beaumont and St. Martin" (pictured above) is the first of six large paintings in oil memorializing "Pioneers of American Medicine" which artist Dean Cornwell will complete in the next few years. Others in the series are: Dr. Oliver Wendell Holmes, Dr. Ephraim McDowell, Dr. Crawford W. Long, Dr. William T. G. Morton, and Major Walter Reed, and one woman, Dorothea Lynde Dix who, while not a physician, stimulated physicians to study insanity and feeble-mindedness.

Arrangements to supply physicians with free, full color reproductions of "Beaumont and St. Martin" without advertising, and suitable for framing, have been made with the owners, John Wyeth and Brother, 1118 Washington Street, Philadelphia.

## INDIANA UNIVERSITY NEWS NOTES

Competing with 160 examinees from leading medical schools of the nation, Milton M. McCall, member of the 1939 class of the Indiana University School of Medicine, has obtained appointment to an internship in the Philadelphia (Pa.) General Hospitals.

Mr. McCall, whose home is in Hammond, competed with students from such universities as Harvard, Columbia, Johns Hopkins, Yale, Cornell, Tulane, Drake and others. He was one of 30 to be chosen from the 160 students.

Notification of a \$6,000 award to the James Whitcomb Riley Hospital for Children (one of the three hospitals of the Indiana University Medical Center) by the National Foundation for Infantile Paralysis has been received by Hugh McK Landon, chairman of the joint executive committee of the hospital. The award is one of the first to be made in the nation.

Keith Morgan, national chairman of the National Organization to Combat Infantile Paralysis, fund-raising group for the foundation, announced the grant.

He also notified Wallace O. Lee, chairman of the Marion county chapter of the national organization, and Dr. William F. King, state organizer.

The money, more than twice the amount the Riley hospital received under former methods of distributing proceeds from the president's birthday balls, will be used for research in the four recognized methods of treatment of infantile paralysis. Until last year the local committee retained 70 per cent of the net proceeds. Riley hospital was allotted 75 per cent of the money retained locally and City hospital received the remainder.

The committee last year sent \$4,351.23, the entire net proceeds, to the national organization. Otherwise Riley hospital would have received \$2,284. The plan this year is for the committee to send in 50 per cent of the net proceeds and retain 50 per cent to be distributed among institutions contributing to the treatment of infantile paralysis.

Mr. Lee and Dr. King expressed gratification over the award.

"The national organization has demonstrated its eagerness to be fair," Mr. Lee said. "We feel confident that support of the president's birthday balls and other events now in the stage of preparation will receive even greater support than in the past."

The plan which the committee of the National Foundation approved was conceived and developed by the staff of Riley hospital. Application for the \$6,000 was made by Dr. W. D. Gatch, dean of the Indiana University School of Medicine, in cooperation with Mrs. Winifred Kahman, chief of occu-

pational therapy, and Miss Charlotte Anderson, occupational therapist and hydrotherapist at the hospital.

Dr. George J. Garceau, chief orthopedic surgeon, will have general supervision of the research program and Dr. Harry W. Sigmond will have direct charge. An additional staff member will be provided to assist Mrs. Kahman and Miss Anderson.

Advised that the \$6,000 will be available within a few days, officials of the hospital have started setting up what virtually will be a new department. Between 150 and 200 infantile paralysis patients will be afforded facilities for treatment as the research is carried on. Orthopedic appliances and books and publications for which there previously have been no funds will now be available.

### MR. GLORE GIVEN CHAMBER OF COMMERCE CITATION

James F. Glore, artist of the Indiana Medical Center in Indianapolis has been awarded the Indianapolis Junior Chamber of Commerce annual citation for outstanding civic service. Mr. Glore, who has been connected with the Medical Center since 1932, has gained national recognition for his illustrations of medical subjects in magazines and textbooks.

The presentation was made at a combined luncheon of the Junior Chamber and the Kiwanis Club at the Columbia Club. The group was addressed by Philip C. Ebeling, Dayton, president of the United States Junior Chamber, on the significance of the Junior Chamber of Commerce movement.

Among special guests invited to the luncheon were Herman B. Wells, Indiana University president, who received the Indiana Junior Chamber citation last September, and Dr. Clyde Culbertson and Henry T. Davis, Indianapolis convention bureau secretary-manager, both of whom are previous recipients of the local situation. Others were Mayor Sullivan; Wallace Howe, Vincennes, Indiana Junior Chamber president; heads of the Rotary, Exchange, Optimist and Lions clubs; Dr. W. D. Gatch and Administrator J. B. H. Martin of the I.U. Medical Center.

### NEW I. U. MEDICAL SCHOOL BULLETIN

Designed for the announced purpose of giving "a panoramic record" of its pedagogic and scientific work, the Indiana University Medical Center at Indianapolis presented this month under the editorship of Dr. J. K. Berman, assistant professor of surgery, the first issue of its "Quarterly Bulletin."

The publication, which the initial issue states is made possible through the generosity of the lay members of the Medical Center's research committee, P. C. Reilly, Hugh McK Landon, and Eli Lilly, is hailed by President Herman B. Wells in



a foreword as satisfying "a long felt need" and serving "to keep our alumni and other practicing physicians fully informed of the progress being made in our great Medical School."

Dean W. D. Gatch of the School of Medicine at Indianapolis in an introductory announcement of the purposes of the Bulletin asserts that it will publish proceedings of the Center's general weekly conferences, of the monthly meetings of the various departments, of the Medical Advisory Council, short papers on medical pedagogy, reports of research done at the Center and elsewhere, and general interest items on the Center's activities.

The first issue of 40 pages carries on its cover a picture of the Center's new Clinical Building. It contains a number of seminar case reports, articles on diagnosis and treatment of various diseases, departmental notes, news of the Medical School at Bloomington, and general alumni news.

The publication has as members of its editorial board, in addition to Dr. Berman, Dean Gatch and Drs. Ernest Rupel, associate in genitourinary surgery; Robert L. Glass, assistant professor of surgery; E. F. Kiser, clinical professor of cardiovascular-renal diseases; Harold M. Trusler, chairman of the division of plastic surgery, and Frederic W. Taylor, assistant professor of general pathology, and James F. Glore, medical artist.

#### REGIONAL FRACTURE COMMITTEES

The Regional Fracture Committee is the agent in each state appointed by the American College of Surgeons to carry out its fracture work in the various states. In Indiana, the committee is composed of twenty units, with Dr. D. R. Ulmer of Terre Haute as chairman. There is need in Indiana for better distribution of fracture equipment, better transportation facilities, better small hospital equipment, more teaching and demonstrations of fractures by universities, training of interns, postgraduate work.

The activities suggested by the chairman are education through medical schools, hospitals, the medical profession and the lay public. A committee of five physicians should be appointed by the president of the county medical society in each industrial center of the state to sponsor this work. Each county society should be encouraged to devote one meeting during the year to fractures. A social service auxiliary committee will be helpful in the work.

Requirements, suggestions and a detailed outline of the work may be obtained from Dr. Ulmer, 507 Rose Dispensary Building, Terre Haute, upon application.

## SOCIETIES AND INSTITUTIONS

### THE INDIANA STATE MEDICAL ASSOCIATION EXECUTIVE COMMITTEE

December 18, 1938.

Meeting called to order at 9:15 a. m.

Roll call showed the following present: C. A. Nafe, M.D., Chairman; C. H. McCaskey, M.D.; H. M. Baker, M.D.; Karl Ruddell, M.D.; E. M. VanBuskirk, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Guests: V. K. Harvey, M.D.; H. B. Mettel, M.D.; Dan Bower, M.D.; Norman M. Beatty, M.D.; and J. William Wright, M.D.

#### Membership Report

Number of members on Dec.	
17, 1938 -----	3,078 (64 hon. mems.)
Number of members on Dec.	
17, 1937 -----	2,978
Gain over last year -----	100
Number of members Dec. 31,	
1937 -----	2,982 (40 hon. mems.)

#### Monthly Statements

The monthly statements of Receipts and Expenditures for November for the Association committees and THE JOURNAL were approved.

#### Treasurer's Office

Upon the motion of Dr. McCaskey, seconded by Dr. Baker, Dr. Weyerbacher, treasurer of the Association, was authorized to purchase \$2,000 or \$2,500 worth of Government bonds to add to the reserve funds of the Association.

#### 1938 Annual Session at Indianapolis

(1) Correspondence in regard to bad check for exhibit space brought to the attention of the Committee. Unless check is made good within a reasonable length of time, the Committee authorized the headquarters office to turn the matter over to the attorney of the Association.

(2) Copy of report upon the 1938 meeting made to the Elkhart County Medical Society by Dr. A. C. Yoder, delegate from Elkhart county, brought to the attention of the Executive Committee. The Executive Committee complimented Dr. Yoder highly upon the report and suggested that it be forwarded to Dr. Shanklin editor of THE JOURNAL for comment in THE JOURNAL.

#### 1939 Annual Session at Fort Wayne

The following dates were set officially for the ninetieth annual session of the Indiana State Medical Association at Fort Wayne, October 10, 11 and 12, 1939.

Report made by Dr. VanBuskirk and the executive secretary on meeting of the general arrangements committee at Fort Wayne.

The Lincoln Life Insurance Company of Fort Wayne has offered to pay the expenses of a speaker of high caliber to address the state meeting. They have in mind Dr. Joslin or a man of similar national standing. The Executive Committee approved having such a speaker on the program if this meets the approval of the scientific program committee.

#### Legislative, Legal and Social Security Matters

##### National:

(1) Informal report made upon situation at Washington in regard to conference between the Committee of Seven of the American Medical Association and the Interdepartmental Committee. It is understood that legislation for presentation to Congress will not be drawn up until after the American Medical Association committee and the Interdepartmental Committee have at

ARE YOUR 1939 DUES PAID?

least one more meeting. Four of the five points presented at the National Health Conference have been agreed upon in principle by the Committee of Seven.

#### Local:

- (1) Preliminary report made upon possible legislation.
- (2) Resolution against the State writing compensation insurance received from the Vanderburgh County Medical Society and forwarded to the Legislative Committee.
- (3) Report upon bill which is being prepared by Dr. Daniel L. Bower, representative from Marion county, to limit the sale of barbiturates, in accordance with the action taken by the House of Delegates of the Indiana State Medical Association, made to the Committee. The Committee approved this bill.
- (4) Bill asking the State to appropriate \$150,000 for the biennial period to be used in purchasing serum in pneumonia type cases and to conduct a pneumonia educational campaign approved by the Executive Committee after being discussed by Dr. Harvey and Dr. Bower.
- (5) Hospital insurance bill to be presented by Representative W. K. Denton of Vanderburgh county, upon behalf of the State Hospital Association, brought to the attention of the Committee by Dr. Bower.
- (6) Lien bill in highway accidents brought to attention of the Committee by Dr. Beatty.

All of these bills were discussed by the Executive Committee and approved in principle by it and referred to the Legislative Committee and Albert Stump, attorney for the Association, for detailed consideration and action.

#### Sickness Insurance and Socialized Medicine

(1) "Medicine in Modern Society" by David Riesman, M.D., published by the Princeton University Press, has been received by the headquarters office and is to be reviewed for THE JOURNAL.

(2) "Health Insurance and Medical Care: The British Experience," by Douglas W. Orr, M.D., and Jean Orr, is to be obtained for the headquarters office.

#### Farm Security Administration

Final copy of the agreement was approved by the Committee upon the motion of Dr. McCaskey, seconded by Dr. Baker.

Article entitled, "Rehearsal for Socialized Medicine," which appeared in The Saturday Evening Post, brought to the attention of the Committee.

#### State Board of Medical Registration and Examination

Proposed legislation and the activities of the Board discussed by the Committee.

#### "Indiana Plan"

Report on diphtheria immunization campaign as carried on by the Bartholomew County Medical Society under the "Indiana Plan" made to the Committee. The Committee suggested that it might be well to publish this in THE JOURNAL.

Letter received from Milt D. Campbell, assistant to director, National Child Welfare Division of the American Legion, stating that the "Indiana Plan" had been submitted for complete study to the Child Welfare Executive Committee of the American Legion. Dr. Edward Clay Mitchell, of Memphis, Tennessee, is chairman of the committee. Mr. Campbell writes, "The American Legion has decided to take on a five-year program of education on the subject of Child Health, and I feel that we can do a lot with the 'Indiana plan' during that time."

#### Organization Matters

##### Council meeting.

At the request of Dr. M. A. Austin, chairman, the date for the Council meeting has been changed from January 15 to January 29, 1939.

The Committee appointed the members of the Executive Committee who reside in Indianapolis to decide what committee chairman should be invited to the luncheon meeting of the Council.

Dr. Baker was authorized by the Executive Committee to prepare a statement concerning the raising of dues of the State Medical Association. This is to be ready

for presentation to members of the Council at the meeting on January 29.

Letters in regard to action taken by various county medical societies concerning raising dues brought to the attention of the Committee. The Washington County Medical Society voted against raising dues. The Clay and Sullivan County Medical Societies voted for raising of dues.

Letter from Dr. N. C. Reglien, Michigan City, in regard to new physicians and membership in the county medical society referred to Albert Stump by the Committee for an answer.

The committees of the State Association for 1939 were announced by Dr. VanBuskirk. Upon the motion of Dr. McCaskey, seconded by Dr. Ruddell, Dr. VanBuskirk received the authority to appoint a liaison committee to act with the State Department of Public Welfare.

It was suggested that the matter be taken up whereby Dr. George C. Stevens' title be changed from Director of Medical Care to that of Director of Mental Hygiene. It was felt that it is important that this title be changed as the Welfare Department should not be concerned with medical care as this is a matter for the State Division of Public Health.

Historical sketch of Lawrence county physicians, prepared by Dr. R. B. Smallwood, Bedford, brought to the attention of the Committee.

#### Medical Care for All the People

Reports have been received from various county medical societies. The Committee felt that these reports from the various societies should be analyzed and run as separate articles from month to month in THE JOURNAL.

#### State Board of Health

Dr. Verne Harvey appeared before the Committee and outlined his four-point pneumonia program which is to be embodied in the bill to be proposed at the coming session of the legislature. (See above under Legislation.) It was moved by Dr. McCaskey, seconded by Dr. Baker, that the Indiana State Medical Association should take an aggressive stand favoring this legislation.

Dr. Harvey presented a suggestion from Dr. Gastineau that reciprocity should exist between the boards of health of the various states concerning the marriage law. Dr. Harvey feels that this is a matter that should be taken up with the heads of the health departments of the various states.

#### Group Hospitalization and Voluntary Health Insurance

(1) Report upon the work being done by F. K. Helsby, executive secretary of the Jackson County Medical Society, Kansas City, Missouri, made to the Committee. Mr. Helsby is to be one of the principal speakers at the secretaries' conference.

(2) Albert Stump, attorney for the Association, gave as his opinion that new legislation is necessary before non-profit group hospitalization plans similar to those now in force in other states can be accepted in Indiana.

(3) Clipping in regard to Utah plan for health insurance brought to the attention of the Committee.

(4) Clipping in regard to the installment plan program for financing dental service, sponsored by the Indianapolis Dental Society, brought to the attention of the Committee.

(5) Bulletin from the Michigan State Medical Society in regard to their group hospitalization plans where "an Enabling Act must be passed before any suitable plan may be put into operation" discussed with the Committee. The Committee suggested that the secretary write to the Michigan Society and get a copy of the legislation to be presented.

#### Venereal Disease Control

Dr. Harvey appeared before the Committee and stated that the venereal disease program that is going into effect in Lake county under the complete jurisdiction of the Lake County Medical Society is to be one of the best programs that has been put in operation in any locality in the country.



#### Postgraduate

Dr. Howard Mettel appeared before the Committee and said that the program in obstetrics, sponsored by the Bureau of Maternal and Child Health, which has been carried on in Perry and Spencer counties, has been well received by the profession in these counties.

Suggestions by Dr. Shanklin in regard to postgraduate instruction in the state brought to the attention of the Committee. The Committee suggested that Dr. Shanklin's letter be referred to the new Committee on Graduate Education for its consideration. In brief, Dr. Shanklin's suggestion is that instead of having every hospital a postgraduate teaching center, several centers, well distributed over the state, should be arranged for postgraduate instruction. He points out that Muncie and Terre Haute at the present time have fine postgraduate programs which can be enlarged upon. He also points out that the Vanderburgh, Tippecanoe, Lake, St. Joseph, Wayne-Union, Fort Wayne and Indianapolis Medical Societies can be developed as such centers. The Committee felt that this might make a good editorial in THE JOURNAL.

#### Construction of State Psychopathic Hospital

Suggestion received from John R. Frank, M.D., Valparaiso, Indiana, that legislation be introduced for the construction of a State psychopathic hospital brought to the attention of the Executive Committee. The Committee passed this suggestion on to the Mental Health Committee which is to have a meeting on December 28 at the headquarters office.

The Committee authorized the secretary to send a letter of appreciation to Dr. Max A. Bahr, professor of neuropsychiatry of the Indiana University School of Medicine and superintendent of the Central State Hospital, Indianapolis, expressing appreciation to Dr. Bahr for the pioneering work which he has done in diagnostic clinic and community mental hygiene service.

#### Medical Economics

(1) *Special Automobile License Plates for Physicians.* Letter from Dr. H. W. Eikenberry of Peru, along with letters from several of the state medical societies, brought to the attention of the Committee. The Committee feels that there are more disadvantages than advantages when physicians have special automobile license plates. The Committee feels that controversies arising between physicians and law enforcing authorities increase and that doctors' cars are broken into more often if they are specially marked than when they are not so marked.

Report on non-pay patients at the Indianapolis City Hospital, prepared by a special committee headed by Dr. Norman Beatty, was distributed to members of the Committee for study.

Group accident and health insurance policies for physicians by the Metropolitan Casualty Insurance Company of New York presented to the Committee. This company has written a number of group policies for county medical societies. It was thought that this is a matter for consideration of local county medical societies rather than the State Association.

#### Indigent Sick

Albert Stump discussed the situation in regard to the right of a township trustee to employ his own physician which takes away the patient-physician relationship. Numerous letters have come to the headquarters office in regard to this matter and these have been answered by Mr. Stump.

#### The Journal

*Notes from Indiana University.* Miss Henrietta Thornton of the Indiana University News Bureau, who has been supplying copy each month, is to be sent a letter expressing the appreciation of THE JOURNAL management for her help and cooperation.

The Committee expressed its appreciation to Dr. Baker for his splendid leadership during the past year as president of the Association.

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## LOCAL SOCIETY REPORTS

The following officers for county societies have been elected for 1939:

### **BARTHOLOMEW COUNTY MEDICAL SOCIETY:**

President, Lyman Overshiner, M.D., Columbus.  
Vice-president, M. C. McKain, M.D., Columbus.  
Secretary-treasurer, B. K. Zaring, M.D., Columbus.

\* \* \*

### **CLARK COUNTY MEDICAL SOCIETY:**

President, S. S. Foss, M.D., Sellersburg  
Vice-president, J. H. Baldwin, M.D., Jeffersonville  
Secretary-treasurer, R. W. Bruner, M.D., Jeffersonville

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### **CLAY COUNTY MEDICAL SOCIETY:**

President, Timothy Weaver, M.D., Brazil.  
Vice-president, Walter Bond, M.D., Clay City.  
Secretary-treasurer, John M. Palm, M.D., Brazil.

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### **CLINTON COUNTY:**

President, N. B. Combs, M.D., Mulberry  
Vice-president, T. A. Dykhuizen, M.D., Frankfort  
Secretary-treasurer, B. A. Work, M.D., Frankfort

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### **DAVIESS-MARTIN COUNTY MEDICAL SOCIETY:**

President, C. P. Fox, M.D., Washington.  
Vice-president, D. H. Swan, M.D., Plainville.  
Secretary-treasurer, A. G. Blazey, M.D., Washington.

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### **DECATUR COUNTY MEDICAL SOCIETY:**

President, Charles Overpeck, M.D., Greensburg  
Vice-president, D. D. Dickson, M.D., Letts  
Secretary-treasurer, R. M. Blemker, M.D., Greensburg

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### **FAYETTE-FRANKLIN COUNTY MEDICAL SOCIETY:**

President, J. S. Lefell, M.D., Connersville.  
Vice-president, Albert Gregg, M.D., Connersville.  
Secretary-treasurer, R. H. Elliott, M.D., Connersville.

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### **GIBSON COUNTY MEDICAL SOCIETY:**

President, Harry H. Alexander, M.D., Princeton.  
Vice-president, R. S. McElroy, M.D., Princeton.  
Secretary-treasurer, O. M. Graves, M.D., Princeton.

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### **HANCOCK COUNTY MEDICAL SOCIETY:**

President, Charles H. Bruner, M.D., Greenfield.  
Vice-president, H. K. Navin, M.D., Fortville.  
Secretary-treasurer, James R. Woods, M.D., Greenfield.  
The regular meeting night of this society has been changed to the second Wednesday night of each month.

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### **HENDRICKS COUNTY MEDICAL SOCIETY:**

President, Arthur N. Scudder, M.D., Brownsburg.  
Vice-president, Harold T. Moore, M.D., Plainfield.  
Secretary-treasurer, W. T. Lawson, M.D., Danville.

\* \* \*

### **HENRY COUNTY:**

President, William S. Robertson, M.D., Spiceland  
Vice-president, William Heilman, M.D., New Castle  
Secretary-treasurer, George Wiggins, M.D., New Castle

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### **HOWARD COUNTY MEDICAL SOCIETY:**

President, G. N. Druley, M.D., Kokomo  
Vice-president, F. S. Cuthbert, M.D., Kokomo  
Secretary-treasurer, W. H. Hutto, M.D., Kokomo

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### **JOHNSON COUNTY MEDICAL SOCIETY:**

President, Frank Albertson, M.D., Trafalgar.  
Vice-president, W. L. Portteus, M.D., Franklin.  
Secretary-treasurer, Wm. E. Sutton, M.D., Edinburg.

### **LAKE COUNTY:**

President, G. L. Verplank, M.D., Gary  
President-elect, J. O. Parramore, M.D., Crown Point  
Secretary-treasurer, Harry Brandman, Whiting  
Executive secretary, Mr. Roland Waterson, Hammond

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### **LAPORTE COUNTY:**

President, L. E. Stephenson, M.D., Michigan City  
Vice-president, D. D. Oak, M.D., LaCrosse  
Secretary-treasurer, S. J. Donovan, M.D., Michigan City

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### **LAWRENCE COUNTY MEDICAL SOCIETY:**

President, L. H. Allen, M.D., Bedford.  
Vice-president, R. B. Smallwood, M.D., Bedford.  
Secretary-treasurer, C. B. Emery, M.D., Bedford.

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### **MIAMI COUNTY MEDICAL SOCIETY:**

President, E. E. Schrock, M.D., Amboy  
Vice-president, R. E. Barnett, M.D., Bunker Hill  
Secretary-treasurer, S. J. Ferrara, M.D., Peru

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### **MONTGOMERY COUNTY MEDICAL SOCIETY:**

President, H. A. Kinnaman, M.D., Crawfordsville.  
Vice-president, M. E. Gross, M.D., Ladoga.  
Secretary-treasurer, J. M. Kirtley, M.D., Crawfordsville

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### **MONROE COUNTY:**

President, William C. Reed, M.D., Bloomington  
Vice-president, Fred H. Batman, M.D., Bloomington  
Secretary-treasurer, Neal E. Baxter, M.D., Bloomington

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### **MORGAN COUNTY:**

President, M. G. Murphy, M.D., Morgantown  
Vice-president, William Stangle, M.D., Mooresville  
Secretary-treasurer, H. E. White, M.D., Martinsville

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### **NOBLE COUNTY MEDICAL SOCIETY:**

President, A. J. Rarick, M.D., Cromwell.  
Vice-president, K. D. Sneary, M.D., Avilla.  
Secretary-treasurer, W. F. Carver, M.D., Albion.

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### **ORANGE COUNTY MEDICAL SOCIETY:**

President, Ivan Clark, M.D., Paoli.  
Vice-president, John I. Maris, M.D., Paoli.  
Secretary-treasurer, George Dillinger, M.D., French Lick

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### **OWEN COUNTY MEDICAL SOCIETY:**

President, R. H. Richards, M.D., Patrickburg.  
Secretary-treasurer, Julia S. Thom, M.D., Gosport.

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### **PARKE-VERMILLION COUNTY MEDICAL SOCIETY:**

President, C. M. Zink, M.D., Clinton.  
Secretary-treasurer, Casper Harstad, M.D., Rockville.

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### **PIKE COUNTY MEDICAL SOCIETY:**

President, John T. Kime, M.D., Petersburg.  
Vice-president, Austin A. Logan, M.D., Petersburg.  
Secretary-treasurer, L. M. McNaughton, M.D., Petersburg.

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### **PORTER COUNTY:**

President, J. W. Dale, M.D., Chesterton  
Vice-president, J. C. Brown, M.D., Valparaiso  
Secretary-treasurer, E. J. De Grazia, M.D., Valparaiso

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### **PUTNAM COUNTY MEDICAL SOCIETY:**

President, Gilbert D. Rhea, Greencastle.  
Secretary-treasurer, Dick Steele, Roachdale.

\* \* \*

### **RANDOLPH COUNTY MEDICAL SOCIETY:**

President, G. H. Davis, M.D., Union City.  
Vice-president, Ivan E. Brenner, M.D., Winchester.  
Secretary-treasurer, Andrew M. Brenner, M.D., Winchester.



**RIPLEY COUNTY MEDICAL SOCIETY:**

President, M. F. Daubenheyer, M.D., Holton.  
Secretary-treasurer, L. H. Hopkins, M.D., Versailles.

\* \* \*

**RUSH COUNTY MEDICAL SOCIETY:**

President, Lowell M. Green, M.D., Rushville.  
Vice-president, George B. McNabb, M.D., Carthage.  
Secretary-treasurer, Robert D. Spindler, M.D., Milroy.

\* \* \*

**SPENCER COUNTY MEDICAL SOCIETY:**

President, J. C. Glackman, M.D., Rockport.  
Vice-president, C. D. Ehrman, M.D., Rockport.  
Secretary-treasurer, V. V. Schriefer, M.D., St. Meinrad.

\* \* \*

**STEBEN COUNTY:**

President, William F. Waller, M.D., Angola  
Vice-president, M. M. Crumm, M.D., Angola  
Secretary-treasurer, S. S. Frazier, M.D., Angola

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**WABASH COUNTY MEDICAL SOCIETY:**

President, L. E. Jewett, M.D., Wabash.  
Vice-president, Z. M. Beaman, M.D., North Manchester.  
Secretary-treasurer, Frederick M. Whisler, M.D., Wabash.

**REPORTS OF MEETINGS**

**ALLEN COUNTY (FORT WAYNE) MEDICAL SOCIETY** members held their annual Christmas dinner party, December twentieth, at the Chamber of Commerce. Dusty Miller, of Wilmington, Ohio, was the guest speaker. Attendance numbered 124.

With sixty-two in attendance, the Fort Wayne society held a business meeting, December twenty-seventh, to discuss medical care of the indigent and prepayment medical insurance.

At the January third meeting, Dr. Charles J. Cooney, of Fort Wayne, talked on "Hematuria." Attendance numbered twenty-seven.

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**BARTHOLOMEW COUNTY MEDICAL SOCIETY** members met at Columbus, December twentieth, with fifteen members present. Final action was taken on a plan for care of the indigent sick. Officers for 1939 were elected.

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**BOONE COUNTY MEDICAL SOCIETY** members met at Lebanon, at the Witham Hospital, January tenth, for a noon luncheon. Dr. Floyd T. Romberger, of Lafayette, talked on "Socialized Medicine."

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**CASS COUNTY MEDICAL SOCIETY** held a business meeting at Cass County Hospital, Logansport, January sixth.

\* \* \*

**CLAY COUNTY MEDICAL SOCIETY** members held their annual Christmas party and dinner at the Clay County Hospital, December twenty-second. Following the dinner, Dr. B. E. Tucker, of Chicago, presented a paper, illustrated with moving pictures.

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**DAVISS-MARTIN COUNTY MEDICAL SOCIETY** members met in Washington, December twentieth, for a business meeting and election of officers. Attendance numbered thirteen.

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**DEARBORN-OHIO COUNTY MEDICAL SOCIETY** held a meeting at Guilford High School gymnasium, December eighth. This was the annual banquet meeting, followed by election of officers for 1939. Thirty-five physicians and their wives and guests attended.

The Dearborn-Ohio County Society held a business meeting at the Reagan Hotel in Lawrenceburg, January fifth. Attendance numbered fourteen.

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**DELAWARE-BLACKFORD COUNTY MEDICAL SOCIETY** held its annual formal dinner at the Hotel Roberts in Muncie, December twentieth, for the members, their families, and the hospital staff. The interns at Ball Memorial Hospital were given sphygmomanometers by the attending physicians.

\* \* \*

**ELKHART COUNTY MEDICAL SOCIETY** members invited the public to attend a meeting at the Hotel Elkhart, January fifth, when Dr. R. G. Leland of Chicago talked about socialized medicine. Approximately three hundred persons heard Dr. Leland's talk, which followed a dinner meeting of the county medical society.

\* \* \*

**FLOYD COUNTY MEDICAL SOCIETY** members met at New Albany, January thirteenth, for a dinner meeting. Dr. C. E. Briscoe, of New Albany, talked on "Syphilis," stressing the late methods of treatment.

\* \* \*

**FOUNTAIN-WARREN COUNTY MEDICAL SOCIETY** met at Veedersburg, January fifth, to hear Dr. Wemple Dodds, of Crawfordsville, talk on "Laboratory Diagnosis for the Practitioner." Dr. F. T. Romberger of Lafayette talked on the disadvantages of state medicine. Attendance numbered eighteen.

\* \* \*

**GREENE COUNTY MEDICAL SOCIETY** held a meeting at the Black and White Cafe in Bloomfield, January twelfth. This was a banquet meeting for members of the society with Dr. Sam Rotman, of Jasonville, as host. Twelve

members were present. Dr. Harry G. Rotman was elected to membership in the society.

\* \* \*

**GIBSON COUNTY MEDICAL SOCIETY** members met at the Emerson Hotel, Princeton, January ninth. Dr. R. R. Acre, of Evansville, presented a paper on "The Prostate After Age Forty." New officers were installed. The members of the diphtheria committee of the society decided to immunize the school children under nine years of age.

\* \* \*

**HANCOCK COUNTY MEDICAL SOCIETY** met at the Columbia Hotel in Greenfield, December fourteenth. The entire session was devoted to a discussion of local, state, and national medical subjects and problems. The forum was in charge of the district councillor, Dr. Samuel A. Kennedy of Shelbyville. At the November meeting of this society it was voted unanimously to raise the dues of the society to meet the needs of the state organization.

\* \* \*

**HAMILTON COUNTY MEDICAL SOCIETY** held a meeting in Noblesville, January tenth. Visiting physicians from over the county were guests of the Noblesville physicians. Dr. Roy Smith of Indianapolis was guest speaker.

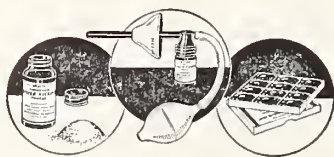
\* \* \*

**HENDRICKS COUNTY MEDICAL SOCIETY** held a meeting at Danville, December sixteenth. Dr. B. D. Rosenak, of Indianapolis, talked on "Diarrheas." Attendance numbered fifteen.

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**HENRY COUNTY MEDICAL SOCIETY** met at Lewisville, December fifteenth. Dr. Herbert T. Wagner, of Indianapolis, told of his personal experiences in Germany, and Austria in 1938. Fifty-five physicians, their wives, and guests attended the meeting. Officers were elected for 1939.

\* \* \*

**HOWARD COUNTY MEDICAL SOCIETY** members held a meeting at the Columbia Club in Indianapolis in December when officers for 1939 were elected. Following the business session at the Club, members later attended a play at the English theater.

\* \* \*

**JAY COUNTY MEDICAL SOCIETY** held a meeting at the Portland Country Club, January sixth, when Dr. W. W. Duemling, of Fort Wayne, was the guest speaker. Dr. Duemling's topic was "Skin Diseases of Interest to the General Practitioner."

\* \* \*

**JOHNSON COUNTY MEDICAL SOCIETY** members met at Franklin, December twenty-second for a business meeting. Officers were elected for 1939.

\* \* \*

**KNOX COUNTY MEDICAL SOCIETY** members held a meeting in the Jewel Cafe, Vincennes, January tenth. Dr. Noel S. McBride, of Terre Haute, talked on "Otitis Media and Its Complications." Sixteen members were present.

\* \* \*

**KOSCIUSKO COUNTY MEDICAL SOCIETY** members met in Warsaw, January tenth. Dr. E. W. Thomas, of Leesburg, presented a paper on "Vitamin A."

\* \* \*

**LAKE COUNTY MEDICAL SOCIETY** held a meeting January twelfth, at Phil Smidt's, with a testimonial dinner for Dr. E. M. Shanklin, of Hammond, who has served for more than twenty years as secretary of the Lake County society. On behalf of the society, Dr. N. K. Forster presented a handsome piece of luggage to Dr. Shanklin. Dr. Phillip Maxwell, of Chicago, member of the editorial staff of the Chicago *Tribune*, was the guest speaker. The new executive secretary, Mr. Roland Waterson, was introduced.

\* \* \*

**LAPORTE COUNTY MEDICAL SOCIETY** met at the American Restaurant in LaPorte, December fifteenth. Dr. W. B. Christophel, of Mishawaka, and Dr. Alfred Ellison, of South Bend, spoke on problems in social medicine. Attendance numbered thirty-two. Officers for 1939 were elected.

\* \* \*

**MARSHALL COUNTY MEDICAL SOCIETY** members held a meeting at the Hi-Way Inn, Plymouth, January fourth. Dr. F. R. N. Carter, of South Bend, talked on "Diphtheria Immunization." Attendance numbered nine.

\* \* \*

**MONTGOMERY COUNTY MEDICAL SOCIETY** met at the Crawfordsville Country Club, December twenty-second, for a dinner meeting. Moving pictures that Dr. and Mrs. Collett had taken on a trip to Europe last summer were shown. This was the annual Christmas party for physicians and their wives, with forty in attendance.

\* \* \*

**MORGAN COUNTY MEDICAL SOCIETY** members held a meeting at The Homestead in Martinsville, December fourteenth. Dr. Leon Gray, of Martinsville, talked on "Serum Treatment of Pneumonia." Attendance numbered eighteen. Dr. Leon Gray and Dr. M. C. Pitkin, retiring president and secretary, were hosts for the dinner meeting.

# 15 YEARS

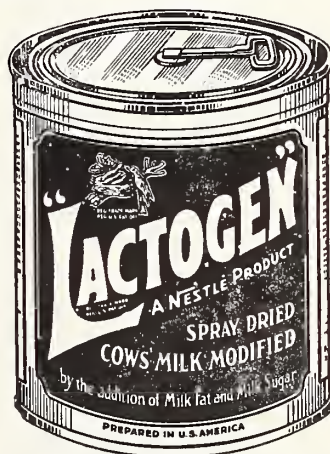
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**NOBLE COUNTY MEDICAL SOCIETY** members held a meeting in Albion, December thirteenth. Dr. J. W. Messer, of Kendallville, talked on "Cooperative Medicine." Two moving pictures were shown: (1) "Safe Home Delivery," and (2) "Treatment of Asphyxia Neonatorum." Attendance numbered twenty-six.

\* \* \*

**PARKE-VERMILLION COUNTY MEDICAL SOCIETY** members held a dinner meeting at the Vermillion County Hospital, in Clinton, December twenty-first. Dr. Gerald Kempf, of Indianapolis, talked on "Smallpox" and also discussed scarlet fever and meningitis in children. Attendance numbered fifteen.

\* \* \*

**PORTER COUNTY MEDICAL SOCIETY** held a meeting at Vaparaíso, December twentieth. Dr. Arthur Miller, of Hobart, was the principal speaker, his subject being "New Treatment and Diagnosis of Tuberculosis by Dr. Kutchera (Germany)." Attendance numbered ten.

\* \* \*

**RANDOLPH COUNTY MEDICAL SOCIETY** members met in Winchester, January ninth. The first meeting of the new year was attended by approximately twenty of the county's physicians. Dr. R. W. Reid of Union City was the principal speaker, his subject being "Bone Structure of the Human Body."

\* \* \*

**RUSH COUNTY MEDICAL SOCIETY** held a meeting at Rushville, January twelfth. C. J. McIntyre, M.D., of Indianapolis, talked on "Tuberculosis."

\* \* \*

**STEBEN COUNTY MEDICAL SOCIETY** members held a meeting in Angola, December nineteenth, for election of officers.

\* \* \*

**SULLIVAN COUNTY MEDICAL SOCIETY** met January fourth, at Sullivan's Mary Sherman Hospital. Dr. William B. Matthews, of Indianapolis, talked on "Common Eye Diseases."

\* \* \*

**TIPPECANOE COUNTY MEDICAL SOCIETY** members met at the State Soldiers Home in Lafayette, January tenth, to hear Dr. Henry O. Mertz, of Indianapolis, talk on "Traumatic Injuries to the Urinary Tract." Attendance numbered forty-five. Commandant Bowman and Dr. C. L. Rowland, of the State Soldiers Home, were hosts to the group.

\* \* \*

**VANDERBURGH COUNTY MEDICAL SOCIETY** members met in Evansville, January tenth, to hear Dr. R. R. Acre, of Evansville, talk on "Prostatic Disease." Attendance numbered fifty.

\* \* \*

**WAYNE-UNION COUNTY MEDICAL SOCIETY** met at the Richmond-Leland Hotel, Richmond, January twelfth. Dr. H. O. Mertz, of Indianapolis, was the principal speaker, his subject being "Injuries of the Urinary Tract." Attendance numbered thirty.

## WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

### FEBRUARY

"Every month of the year has its own peculiar and direct influence upon health and bodily conditions generally; nay, even upon the state of the mind."—Arthur Schopenhauer.

"The winter months bring pneumonia, one of the most vicious of all illnesses. In combatting the disease, it is necessary to educate the public and support the efforts of physicians and research workers to the end that they will all lend their cooperation in the fight against pneumonia."—Dr. E. M. Van Buskirk.

New Jersey's report to A.M.A. is suggestive.

Health legislation was studied extensively in each auxiliary. This information was sent to us from our state medical society. The Medical Society of New Jersey has a rather effective set-up for following legislation. The executive offices are in the state capital near the capitol building and an executive officer attends all legislative sessions and follows through, with the aid of legislative bulletins, the bills relating to public health and medical practice.

When these bills are available, they are sent to the members of the Committee on Legislation of the Medical Society of New Jersey, who go over them and analyze their weak and strong points. The number of the bill, the date of introduction, the introducer and sponsor and the committee in which it rests are sent to the "keyman" in each county society together with an analysis of the bill. These keymen contact their legislators and present their arguments for and against certain designated bills. The keymen then report to the executive officer the legislators who support or oppose it. If no declaration is made either way, this is also reported.

Legislative bulletins go out periodically. After the session is well under way, the important bills are selected for concentration, a special bulletin is issued through the legislative chairman of the Woman's Auxiliary to the officers in each county society, and the women are urged to endorse these bills and have their women's clubs endorse them in the interests of the public. This procedure has been found to be effective, and we believe that at the crucial moment the influence of the women can be made important.

"Body Menders," by James Harpole, is a delightful book about doctors. Just off the press.

The day is not far distant when cooking will be recognized as one of the *fine arts*. "Emile Dymoz, a cook of London, contended in a speech before a group of eminent British physicians that his profession contributed as much as theirs to the health and happiness of mankind."—Indianapolis News editorial, January 14.

Vigo County Auxiliary held a dinner meeting January 10th, with an attendance of 70. Mrs. J. E. Freed, president, gave a brief history and discussed the projects undertaken—family welfare, student loans, and occupational therapy, done under supervision of the members. The guest speaker was Mr. Phil Brown, son of Mrs. Demarchus Brown, Indianapolis. He told of his visit to Williamsburg and illustrated his talk with colored pictures. A dinner and social hour followed in the Junior Ballroom of Terre Haute House.

Marion County Auxiliary held their annual dinner dance with the County Medical Society January 10th at the Indianapolis Athletic Club. There were 480 present Delaware-Blackford County Auxiliary for 1939:

#### Officers

President, Mrs. Clay A. Ball.

Vice-president, Mrs. F. E. Kirshman.

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Secretary, Mrs. G. S. Young.  
Treasurer, Mrs. Robert Turner.  
Wabash County Auxiliary Officers for 1939:  
President, Mrs. J. G. Kidd, Roann.  
Vice-president, Mrs. A. J. Steffen, Wabash.  
Secretary, Mrs. J. L. Walker, LaFontaine.  
Treasurer, Mrs. J. L. Warvel, North Manchester.

Mrs. M. B. Van Cleave entertained the executive committee with a luncheon January 20 at the Columbia Club, Indianapolis. Plans for the coming year were discussed.

Mrs. Morris Fishbein sends greetings to Indiana members and congratulations for our "Hoosier News Letter."

Mrs. William Tomlin, whose address is 321 Ocean Park Blvd., Ocean Park, California, sends New Year's Greetings.

Mrs. Ed Clark is spending the winter with her daughter at No. 3 Adelaide St., Rye, New York.

It is not too early to plan for the meeting of the A.M.A. in St. Louis, May 15. It is important for all county and state officers to attend.

Mrs. W. F. HUGHES, *Chairman*,  
Press and Publicity.

#### BOOKS

**PRINCIPLES AND PRACTICE OF OBSTETRICS.** By Joseph B. DeLee, A.M., M.D. Seventh Edition. 1211 pages, 1277 illustrations, on 985 figures, 271 in colors. Cloth, \$12.00 net. W. B. Saunders Company, Philadelphia, 1938.

A toastmaster often introduces a well known speaker by the trite, "The speaker of the evening is well known

to you all and needs no introduction." The same may be said of Dr. DeLee's new seventh edition of the Principles and Practice of Obstetrics.

This edition has been entirely reset. It includes all the valuable contributions on obstetrics up to the time of its publication. It has always been superior as a book in which to find the information one seeks in a treatise on obstetrics. The clearness and completeness of its information aided by its many and beautiful illustrations including photographs, drawing and motion picture sequences, makes it a pleasure to study.

Special attention has been given (in this edition) to the toxemias of pregnancy; to the newer methods of analgesia and anaesthesia; the sulfanilamide treatment of puerperal sepsis; Willett's forceps in placenta previa; contracted pelvis and the mechanism of labor. As always the procedures of home delivery are carefully gone into.

Conservatism has always been the keynote of Dr. DeLee's information and the extensive clinical material upon which the book is based guarantees that the methods are tried and proven to be sound. One must be very sure of himself to criticize the information here portrayed. American obstetrics is greatly indebted to the teachings of DeLee's Principles and Practice for the past twenty-five years.

#### Books Received:

**SCARLET FEVER.** By George F. Dick, M.D., D.Sc., professor of medicine, University of Chicago; and Gladys Henry Dick, M.D., D.Sc., Chicago. 149 pages. Cloth. The Year Book Publishers, Inc., Chicago, 1938.

\* \* \*

**TREATMENT OF FRACTURES.** By Charles Locke Scudder, A.B., Ph.B., M.D., consulting surgeon to the Massachusetts General Hospital. Eleventh Edition,

(Continued on page xxviii)



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One 400 k.v. x-ray apparatus  
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## ADVERTISERS IN THIS ISSUE

Adams, Arthur (medical books).....	viii
American Can Company, New York.....	v
Bobbs-Merrill, Indianapolis.....	xli
Buck, Maynard A., Warren, Ohio.....	xvii
Chicago Tumor Institute.....	xxviii
Coca-Cola.....	xxvii
Cook County Graduate School, Chicago.....	xv
Eli Lilly & Company, Indianapolis.....	xx
Employers Mutuals, Wausau, Wisconsin.....	iv
Hanger Company, Indianapolis.....	xvi
Home Lawn Sanitarium, Martinsville.....	xiv
Hord's Sanitarium, Anchorage, Ky.....	xviii
Indiana University School of Medicine.....	4th cover
Kenilworth Sanitarium, Kenilworth, Ill.....	xvi
Lederle Laboratories, New York.....	xiii
Louisville Neuropathic Sanit., Louisville.....	xvi
Luzier's, Inc., Kansas City, Mo.....	xl
Maples Sanitarium, St. Mary's Ohio.....	xvi
McMillen Sanitarium, Columbus, Ohio.....	xviii
Mead Johnson & Co., Evansville.....	xiii
Medical Protective Co., Wheaton, Ill.....	xxi
Milwaukee Sanit., Wauwatosa, Wisc.....	4th cover
National Association of Chewing Gum Manufacturers, New York.....	xxiii
Nestle's Milk Products, Inc., New York.....	xxv
Neuronhurst—Fletcher's Sanit., Indianapolis.....	xvii
Parke-Davis Company, Detroit.....	xii
Petrolagar Company, Chicago.....	2nd cover
Philip Morris Cigarettes.....	xxix
Physicians' Casualty Assoc., Omaha, Neb.....	xxi
Physicians' Directory.....	xxx
Pitman-Moore Co., Indianapolis.....	xix
Plymouth Sanitarium, Plymouth, Ind.....	xviii
Pogue School, Wheaton, Ill.....	xvii
Rogers Memorial Sanit., Oconomowoc, Wisc.....	xix
S.M.A. Corporation, Chicago, Ill.....	ix
Smith, Kline & French Labs., Philadelphia.....	vii
South Bend Medical Laboratory.....	xvii
Sterne Memorial Hospital, Indianapolis.....	xvii
Stokes Hospital, Louisville, Ky.....	xv
Upjohn Company, Kalamazoo, Mich.....	iii
Waukesha Springs Sanitarium, Waukesha, Wisc.....	xvi
White-Haines Optical Co., Indianapolis.....	xv
Wyeth, John, & Bro., Philadelphia.....	xxiv
Zemmer Co., Pittsburgh.....	xxvi

## BOOKS—Continued from page xxvi

revised. 1209 pages with 1717 illustrations. Cloth. Price \$12.00. W. B. Saunders Company, Philadelphia and London, 1939.

\* \* \*

**SICKNESS INSURANCE IN EUROPE.** By J. G. Crownhart, secretary, State Medical Society of Wisconsin, Madison, Wisc. 134 pages, illustrated. Cloth. Price \$1.00. J. G. Crownhart, Madison, Wisconsin, 1938.

\* \* \*

**MANUAL OF REPARATIVE PLASTIC SURGERY.** By J. Eastman Sheehan, M.D., F.A.C.S., professor of plastic reparative surgery, New York Polyclinic Medical School and Hospital. 311 pages, with 314 illustrations and 18 full page plates. Cloth. Price \$5.50. Paul B. Hoeber, Inc., New York and London, 1938.

## SOURCES OF INFECTION IN SYPHILIS

Of 909 patients traced through a coordinated system of follow-up by the social service worker and the police officer (George V. Kulchar and Erla I. Ninnis, Amer. J. Syph., Gonorr., & Ven. Dis., St. Louis, Sept., 1938, 22:584), 39.8 per cent probably acquired their syphilis from prostitutes, 51.1 per cent from clandestine contacts, 4.7 per cent from marital relations, and 4.4 per cent from homosexual contacts. Many of these contacts were unverified. Clandestine intercourse is a factor of at least equal and perhaps greater importance than commercial prostitution in the transmission of syphilis.

## DOCTORS IN MUSIC

Do you or any of your medical friends play any musical instrument? Mead Johnson & Company is now preparing a new publication devoted to the hobbies and achievements of physicians, past and present, in the field of music. Doctors' orchestras, doctors' glee clubs, historical or biographical items, with or without illustrations, will be welcomed. Please send your item to Mead Johnson & Company, Evansville, Ind. (If you have not received your free copy of their recent publication "Parergon," devoted to fine art by doctors, send for it now.)

## CLASSIFIED ADVERTISEMENT

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# THE JOURNAL

OF THE

## INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 32

MARCH, 1939

NUMBER 3

### HEARING DEFECTS

RALPH S. CHAPPELL, M.D.  
INDIANAPOLIS

The first consideration in the discussion of hearing defects is the diagnosis and differential diagnosis. A careful history is necessary and should include not only the previous general and aural ills of the patient, but a complete family history, especially in so far as it relates to deafness and ear diseases in brothers, sisters, parents, grandparents, uncles and aunts. The hereditary factor in hearing defects should be a matter of common knowledge to all. Surely a complete family history shows the tendency of a given family. I have found and previously reported a family of ten (father, mother and eight children) all of whom were suffering with the same ear disease and deafness. I believe that when deafness or hearing defects are diagnosed, every member of the family should be examined, so that in case of positive findings preventive measures can be instituted.

The second step in the diagnosis is a complete hearing test and, in my opinion, no hearing test is complete without an audiogram made by a standard audiometer, which is the most accurate and scientific way of making ear tests. Tuning forks are used for certain tests but the audiogram gives the best picture and is also a permanent record for future reference and comparison after treatment is instituted.

After the family history and functional hearing tests have been made, the physical examination is undertaken, and likewise should be thorough and complete. It should include a careful examination of the ears, nose, and throat, x-ray of the teeth, and, when indicated, a blood and spinal Wassermann and a vestibular test.

Often one ear disease is complicated by another, or two distinct diseases are found concurrently. For example, otosclerosis, which is a distinct disease entity, is often complicated by another chronic or even acute ear disease, such as an acute otitis media, which when found in an otosclerotic should be treated as an acute disease.

The patient's statement is also important and while the physician is not compelled to rely upon it as was necessary before the instruments of precision were in use, there is some information that no one but the patient himself can give. For this reason the examination of infants and very young children is more puzzling and often more difficult than is the case in adults. However, the cochleo-palpebral test to determine total absence of serviceable hearing of infants and very young children, while not infallible, has proved very helpful to me. The patient alone can tell of the existence and character of tinnitus, the precise location of pain and other important diagnostic points. Usually he can give accurate information about the amount and duration of aural discharge and the onset of hearing defects. Often, however, an elderly person will present himself, complaining of an increasing deafness of recent origin, and examination will show extensive lesions, obviously of long standing. I have recently found a student nurse with total loss of hearing in the left ear who insists that she was unconscious of an impairment. Man has been given a much greater hearing range than is required to meet the ordinary needs of civilized life; consequently, an individual may lose a considerable percentage of hearing without being conscious of his loss. This fact is responsible for frequent neglect of the ears until it is too late to obtain satisfactory results from treatment and has perhaps been the cause of the widespread, persistent fallacy to the effect that when deterioration is once begun in the ear, nothing can stop it. This defeatist attitude which is erroneous has caused much suffering and preventable deafness. Deafness and hearing defects are invisible defects, and examination and hearing tests are required to find them. This is why hearing tests have been introduced into the schools and colleges. The early detection of hearing defects, made a regular part of the school health program, is of prime importance. It provides for the

child not only an early diagnosis, which is his only hope for a permanent cure, but also enables him to receive whatever special educational care and adjustment his condition requires in order that he may have equal opportunities with the normally hearing child. Early diagnosis and treatment safeguard him in so far as possible against the severe handicap of deafness in later life.

Hearing defects are generally classified as congenital and acquired. Congenital defects, which are generally more profound, are interesting from a diagnostic standpoint only, as little can be done for their alleviation. Consequently, when the diagnosis is made, the problem becomes purely educational. However, the physician's obligation to his patient is not fulfilled until he has rendered the important service of advice about school placement and other information relative to the general welfare of the deaf child. I have previously stated that congenital deafness seems to be increasing in Indiana. This belief is based on the increasing number of children seen in private practice, in the hearing clinic at the Indiana University School of Medicine, and in the marked increase in the last six years in the size of the beginning classes at the Indiana State School for the Deaf. Acquired hearing defects make up the larger percent of all cases found. Even in the State School for the Deaf, where practically all the congenital cases are segregated, there are more acquired than congenital cases. Let me state that the children in the Deaf School have the same lesions from the same causes that are found in children in the public schools; the only difference is that, in those in the Deaf School, a more profound lesion is present. Until recent years acquired deafness has been considered as an affliction of adult life, but we now know that basically, at least, it commences in early life.

No physical calamity, other than the obviously fatal diseases, provokes more despair, hopelessness and depression than defective hearing. The sense of helplessness, due to the loss of power to communicate with others, causes acute mental suffering which, added to the resulting isolation, brings about depression that the psychiatrist recognizes as dangerous. It is the duty of the otologist to so inform himself that he may be able to guide his deafened patient to healthful rehabilitation. The otologist is often called upon to give the deafened patient a final opinion where no hope of permanent improvement may be held out. The otologist must face the facts, unpleasant as they are. It is one thing for the otologist, after having conducted all the hearing tests necessary, conscientiously to tell the deafened patient, even in the kindest way, that his deafness is incurable, but this will not suffice. He must go further and fully inform him how best to overcome his handicap. The first is an ordinary professional transaction; the second requires time and toil beyond the realm of financial remuneration.

The important requirements of the deafened patient are, first, the maintenance of health; second, the acquisition of the art of speech reading; third,

vocational readjustment through rehabilitation and, fourth, the wearing of a proper hearing aid when indicated. Many cases could be cited; one will suffice as an illustration of what can be accomplished in rehabilitation. A physician's son, a university student in his early twenties, preparing for the practice of medicine, developed meningitis six years ago, which left him with incurable sub-total deafness. After a stormy mental upset, he was persuaded to take up other work for which his education had partly fitted him. He is now married to a hearing wife, has a hearing child, plays golf and bridge with his hearing neighbors, lives a happy, normal life, supports his family, and is an asset to this state and community.

Perhaps the most useful single factor in the rehabilitation of the adult deaf patient is the association with the society for the Hard of Hearing. There are now about seventy local chapters in the United States, affiliated with the American Society in Washington. The American Society is housed with the Volta Bureau in Washington, D. C., and gives reliable information of extra-medical character for the deafened adults.

Hearing aids have already been mentioned. There are now more than fifty, electrical and otherwise, on the market. Great advances have been made in recent years, but no one should be permitted to purchase or wear a hearing aid that has not been prescribed by an otologist, for he alone can select the proper instrument for a given patient, and that only after a differential diagnosis has been made.

Vocational readjustment is an important phase of the advice given the deafened. Indiana and almost every other state in the Union have bureaus for the rehabilitation of the physically handicapped. The Indiana State Bureau has been co-operating to a high degree in giving aid to the hard of hearing. It has been found that about forty percent of the deafened adults must change their occupation as a result of their hearing loss. The waste of man power and human efficiency is great and often staggers the victim for years. The situation is, however, more hopeful than would first appear, for many occupations in normal times are open to the hard of hearing and a considerable number of vocations offer opportunity for success to those handicapped by acquired deafness. It is providential that deafened people seem to possess unusual ability for concentration and this makes brain work available to many. The otologist is frequently consulted for advice regarding occupations suitable for the hard of hearing. Many cases could be cited; two will suffice. Both of these cases appeared recently in the hearing clinic. First, a girl nineteen years of age, an orphan from Clay county, stated that she was spending all of her inheritance taking a secretarial course in business college. She was advised that her hearing defect was progressive and would unfit her to take dictation and render her unfit to meet the public. Consequently, she was advised to discontinue her present course and take another. The second patient was a girl in her early



teens who said she wanted to be an artist. She was encouraged to continue and told that while her deafness, which was incurable, would not make her an artist, it would not, providing she had the talent, in any way interfere with her career. Edison was a greater inventor because of the fact that he was a deaf man. In our advice to the deafened we must keep in mind that isolation and not silence is the distinguishing terror of acquired deafness; consequently, those patients must be encouraged to combat the sense of isolation. The radio has brought happiness and entertainment to the deafened and while it has rehabilitative value, especially for the elderly, the young people of a seclusive tendency should not grow too dependent upon its entertainment.

Deafened people should be warned to avoid all forms of advertised quackery, for truly there is a fake for every ache. A good general rule for deafened people is to disregard and ignore any and all advertisements and "write-ups" claiming to cure deafness. The Bureau of Investigation of the American Medical Association has published a pamphlet entitled "Deafness Cures and Quackery," dealing with fads and fakes in this field. This pamphlet is on sale at Association headquarters, 535 North Dearborn Street, Chicago.

Most industrial plants have physicians as medical officers. These physicians work in cooperation with employment managers and they should assume a more intelligent attitude toward the deafened worker. In many places the rule is to classify the deafened worker as a diseased person and, in consequence, deny him employment for which he is well qualified. As acquired deafness is not a disease, but is the end result of a disease which may not be actively present, acquired deafness should not be classified as a health hazard. Fatigue has a meaning all its own and should always be kept in mind, so as not to advise our deafened patient to engage in occupations which cause nerve strain and fatigue. Occupations requiring constant public

contact, such as salesmanship, are to be avoided. Instead, occupations should be chosen which will conserve the patient's hearing and health.

Obviously from the many times that "incurable" is mentioned in the discussion of hearing defects, prevention is an important matter. All medical and surgical measures are in their aim preventive whether they are applied before, during, or after the appearance of the condition against which they are directed. A healthy auditory and respiratory apparatus needs no treatment. Hands off and a little common sense as to diet, clothing, and environment is all that is indicated. Avoid and treat head infections. Ninety-nine percent of all ear diseases originate in the upper respiratory tract. Self-spraying and douching the nose is unwarranted in the prevention of ear diseases and may be dangerous if used as a routine procedure. The antiseptic action of these sprays is slight, unless they are strong enough to be harmful. Moreover they gravitate to the floor of the nose and do not reach the spots where infection tends to lodge. All of the sinuses are covered with mucous membrane, with cilia currents moving toward the openings into the nose. These ostia are very small and are easily occluded by edema or secretions, consequently any treatment of the nose should be made under the observation of the physician and should be directed against infections in the nose and nasopharynx. The prompt and efficient treatment of suppurating otitis media is important. The removal of adenoid tissue is perhaps the most important single preventive measure because it removes a potential source of trouble, reestablishes normal nasal breathing, and usually builds up the resistance more than vaccines or vitamins.

Finally, if the prevention has not prevented and the curative measures have failed to cure, the otologist can still render a great service to those with hearing defects by proper advice and encouragement.

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## SPEECH AND HEARING DEFECTS

C. H. McCASKEY, M.D.

INDIANAPOLIS

Speech defects and hearing deficiencies present a national problem. According to Horace Newhart, among 50,000,000 children of school age in the United States, there are 60,000 totally deaf, 3,000,000 hard of hearing, and 4,000,000 defective in speech. Since the incidence of speech defects is eight times as great among those with a hearing loss as it is among normal hearing persons, the last two figures cited must represent considerable overlapping, emphasizing the importance of hearing deficiency in a substantial portion of speech defects. It has been estimated that one-tenth of the people of the United States, or 13,000,000 peo-

ple, are speech cripples of some type. The economic loss from the lowered efficiency of these people and the loss in human happiness is beyond calculation.

Defects of speech and hearing are closely related and present a very complex problem. These cases require the combined efforts of the family physician, otolaryngologist, psychologist, and trainer of speech and lip reading. It has been the tendency in the past for each of the above workers to search along his own line for a correction of the defect without the aid of co-workers in whose field the defect may have its origin.

People suffering from defects of hearing or speech are diversions from the normal and should be considered as patients. They should be subjected to a thorough physical and mental examination by their family physician. Both physical and mental health are essential for proper speech and perception of sounds.

The larynx is the primary source of spoken tones, but it is not the complete vocal apparatus. Defects of speech are due to a great variety of causes, most of which are extra-laryngeal. The vibrations of the vocal cords produce the primary tone, but this tone is modified by the chest, pharynx, epipharynx, nasal sinuses, tongue, and mouth. The character of the tone is also somewhat dependent upon the respiratory movements of the chest, abdominal muscles, and diaphragm. If the proper functions of the above organs are necessary for the production of the normal speech, a thorough examination of these anatomical structures should be made by the laryngologist in those patients affected with defective speech. After this examination, the cases should be investigated by the neurologist and psychologist. If the cause of the speech defect is found by the above methods, this information should be of great value to those trained in the correction of speech disorders. A large percentage of these cases may be due to functional disorders, and many of them have an inherited neuropathic history.

The widespread use of the audiometer in recent years has given the otologist more accurate data and has made it possible to detect slight degrees of deafness which may, in the past, have been overlooked. Several types of hearing tests are given by the group method in various public schools. Many of those tested by group methods, showing slight degrees of deafness, are found to have hearing within normal limits when checked individually by an otologist. It should be emphasized that a large percentage of cases with acquired deafness could be prevented by proper treatment of ear infections. When treating an acute ear infection, the otologist should make every effort to preserve the hearing. In order to do so, in cases of a purulent infection of the middle ear, the tympanic membrane should be opened early and

widely so as to give adequate drainage. If the discharge from the ear is abundant for longer than two weeks, a mastoid operation should be considered, after the condition of the nasopharynx, tonsils, and sinuses has been investigated. Recognition and treatment of nose and throat infections may bring about a cure of the ear infections. A prolonged discharging ear may cause permanent hearing loss. This may be preserved if adequate treatment is instigated early in the course of the infection. It is better to consider a simple mastoid operation and to obtain a normally functioning ear than it is to allow the aural infection to become prolonged with inadequate drainage and with further destruction of the middle ear. It may later require a radical mastoidectomy to eradicate the infection and result in some permanent deafness.

There are several other types of acquired deafness involving the perceptive hearing apparatus produced by general infectious diseases, injuries, etc. Only 40% of the cases of profound deafness are acquired, while 60% of these are of congenital types.

Patients afflicted with deafness should have both a general physical and an otolaryngological examination including an audiometric reading. If mechanical aids and lip reading instruction are indicated, they should be started as soon as possible, especially with children. In caring for these patients, it requires the combined efforts of the otologist and instructor for correction of speech.

There are at least 30,000 children in Indiana who are severely handicapped by speech and hearing impediments and who are receiving little corrective treatment, according to Dr. Robert Milisen, Director of the Indiana University Speech and Hearing Clinic. In an effort to correct these conditions, the University, in cooperation with a national service sorority, has established a "Traveling Clinic" to give direct aid to these children within their own school systems. A state wide itinerary has been planned whereby those handicapped may be examined. Twenty thousand children have been subjected to group tests for hearing defects. Cooperation of the local school with the clinic is essential in the application of recommendations made by the clinic.

#### SULFANILAMIDE DERIVATIVE NAMED

Recent reports from investigators indicate that a pyridine derivative of sulfanilamide [2(-aminobenzene-sulphamido) pyridine or sulfanilamidopyridine] is apparently more promising in the treatment of certain types of pneumonia than sulfanilamide itself, the Council on Pharmacy and Chemistry of the American Medical Association says in *The Journal of the American Medical Association* for Jan. 7.

A number of investigators, and manufacturers as well, requested the Council to coin a nonproprietary designation for this product. The Council has therefore adopted the term "sulfapyridine" (sulf-a-pyr-i-dine).

The product is in an experimental stage and according to present information the government has not licensed it for interstate sale. The Council will publish a preliminary report on this product in the near future.

#### INDIANA UNIVERSITY POSTGRADUATE COURSE

April 10 to 15, 1939

(See preliminary program—page XLII)



## SPEECH AND HEARING DEFECTS

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"Hear not, speak not" tells in four words the reason why a deaf person is mute. Since he has never heard the spoken word, he cannot reproduce it. A child acquires speech by hearing others. If his hearing mechanism is imperfect, that is, permits no perception of speech sounds, he will not learn to speak although the neuro-muscular mechanism for speech may be perfect. Very few deaf persons have complete loss of hearing and hence under certain conditions may acquire speech sounds in proportion to their hearing. For example, children with the severest hearing loss will hear no sounds whatever. Others may hear loud noises only. Some with more hearing may hear but not distinguish differences between high and low pitches, or between speech and musical sounds, while others can distinguish them. Some children hear loud vowels close to the ear but can't differentiate them and some may distinguish one or two. Still other children may recognize all the vowels but none of the consonants. Abilities to hear also depend upon the loudness of the sounds and the proximity of their sources to the ear. Thus vowel sounds might be heard by one person only when produced by a loud voice one inch from the ear. Others might hear them at six inches to one or two feet.

Since ordinary conversation between persons is at three or four feet and at a moderate loudness, these children will not respond spontaneously to normal speech sounds and hence will not acquire normal speech through hearing alone. They must have speech instruction supplemented by sight and touch training before they can produce speech sounds and at that their sounds will usually not be those of normal hearing persons. They must have training in pitch, rhythm, voice quality, articulation and language. In spite of this training, many will have labored or arrhythmic speech simply because they do not hear their own voices. However, many factors are involved in their progress toward good speech. The amount of personal attention given a child by his teacher is the greatest factor, other things being equal. Some schools graduate deaf children with fairly normal speech. But intelligence, age of onset and presence of other physical handicaps, etc., are definite factors in the development of the deaf child's speech.

When one describes the ability of a deaf person to hear, one uses the terms "loud voice," "an inch from the ear" or "hears vowels but not consonants." These and similar expressions are satisfactory for conveying a general idea but do not

give a picture adequate for complete understanding of the relationship between speech and hearing. Two implications may be taken from these terms: various degrees of loudness and basic differences between vowels and consonants. On the one hand, how loud is a conversational or loud or soft voice? On the other hand, why do some persons hear vowels and not consonants, or low and not high pitches?

Telephony has furnished a convenient symbol of measurement of loudness, which is familiar to the electrical and acoustic fraternity. The decibel is the least change in loudness the average person can detect between two sounds. In other words, the decibel is merely a step in loudness (logarithmic) and is a standard scale of intensity for acoustics and electricity. Using a sound-proof room for the base or zero reference level, various sounds may be expressed in terms of so many decibels or steps of loudness above absolute silence. Thus the average office in a large city may have a noise level of 25 or 30 decibels above silence. A subway roar may be 65 or 70 decibels. Likewise, the ability to hear or failure to hear speech sounds may be indicated in terms of decibels. Using the same zero reference level of a sound-proof room, a person should hear a whispered voice at about 36 to 40 feet. If he can't hear it at this distance but can hear it at 20 feet, he has 5 or 6 decibels loss. If he can only hear it at 6 feet he has about 15 decibels loss and at one inch it is about 50 decibels loss in hearing. It is thus possible to indicate how deafened a person is in terms of decibels by determining how well he hears speech under specific conditions. For example, experience with hard of hearing persons will show that if a person does not hear in a theatre or church he has about 20 to 30 decibel loss. If he doesn't hear conversation in the average room he has 40 to 50 decibel loss. If he doesn't hear over a telephone, he has about 60 to 70 decibel loss.

These facts may explain how loud speech must be for a person to hear it, but it does not explain why he may hear certain sounds and not others. The human speech mechanism produces vowel sounds which have vibrations in particular areas of the pitch scale, which gives them their characteristic sounds. Thus the sound "a" as in father has about 800 vibrations per second while the sound "oo" in tool has about 400 vibrations. Each of these also has vibrations at a higher pitch. The consonants, however, are much higher in the pitch scale, reaching up to more than 8,000 vibrations per second. Fortunately, the human ear perceives sounds best within the same pitch range held by the vowels and consonants, although the

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average young person can hear sounds between 16 and 20,000 vibrations.

Speech sounds not only have characteristic positions in the scale of vibrations, but also in the scale of loudness. Thus the vowels are much louder than some of the consonants. For example, *aw* as in tall is the loudest speech sound while *th* in think is the softest. Consonants such as *p*, *f*, *s*, *sh*, *ch* are so soft compared to vowels that in a crowded room where there is much conversation, they are not heard at all because they are drowned by the noise. This masking effect is very similar to what happens to a person who does not have good hearing. He too does not hear particular speech sounds, but in his case he has a hearing defect. He may have a loss in a position of the pitch scale that prevents him from hearing particular consonants or vowels.

A special disability in hearing may be verified by measuring the person's hearing. The frequency or pitch scale of hearing may be opposed to the decibel or loudness scale to reveal graphically the nature of the hearing defect. On the audiometer, one dial may be set at a given pitch, say 256 or middle C. Another dial may be turned to raise the loudness of this tone until the person says he hears it. Repeating this on other octaves, the test obtains a reading of the hearing defect along the pitch scale. Below is a set of readings of one ear each of a person having normal hearing and four deaf children.

Pitch	Hearing loss in decibels of pupils:				
	A	B	C	D	E
128	0	50	....	50	....
256	0	60	70	60	....
512	5	70	90	80	80
1024	5	90	....	....	90
2048	0	....	....	....	80
4096	5	....	....	....	85
8192	0	....	....	....	....

Pupil A has normal hearing. This might be the average curve of a large number of pupils measured in a sound-proof room. Such normal hearing persons, other things being satisfactory, should have normal speech. Pupil B is a deaf child who had no speech before admission to a state school for the deaf. She would not respond to a human voice. Her speech had to be taught by means of sight, touch, rhythm, etc. Pupil C has merely a small patch of residual hearing, being born deaf. He heard a loud noise one inch from the ear but could not distinguish one noise from another; could not appreciate rhythm or change in pitch. He did not speak before training. Pupil D was born deaf. He could not recognize the human voice. After training, his voice was high-pitched. Pupil E could hear vowels close to the ear when pronounced loudly, but could not distinguish between them. Speech was also mute before training. After speech training, the voice was low-pitched. Pupils D and E give an interesting contrast of voice pitches. D had no hearing in the high pitches and was unable to discover that his

voice was too high in pitch. Since E had no hearing in the low or laryngeal region, he could not tell that his voice was too low. This contrast reveals an important relationship between speech and hearing. People control their voices because they hear them. They modulate their voices in order to express themselves forcefully or subtly and in turn they appreciate more fully through hearing the expressive verbal offerings of others.

The next group of scores belongs to persons having partial deafness or having lost their hearing before speech was acquired.\*

Pitch	Hearing loss in decibels of pupils			
	F	G	H	I
128	45	15	25	40
256	50	20	25	45
512	50	30	25	45
1024	50	40	35	45
2048	60	50	70	25
4096	60	60	90*	15
8192	....	65	70*	5

\* Limit of audiometer.

Pupil F acquired his deafness at about one year.\* His speech when beginning kindergarten was almost unintelligible, although when a person knew his substitutions the speech could be understood. Initial and final consonants were omitted or indistinct and there were many substitutions; voice was weak, high-pitched; nasal; vowels imperfect, unable to distinguish "a" in tame from "e" in me. Examination of his hearing score gives the reason. He had between 50 and 60 decibels loss in the vowel region, the lower portion of the pitch scale and 60 or more decibels loss in the upper or consonant portion of the scale. Pupil G lost his hearing at about one year as a result of an infectious disease. Both ears showed identical hearing losses. This boy, 16 years of age, was brought to the speech clinic while this paper was being prepared. In determining his prognosis for retraining, a trial lesson was given using the sound "th" as in think. He could not reproduce the sound and replied he didn't know what it sounded like. The hearing score shows he could not possibly hear the sound. It also explained why he dropped some of his final consonants and was very weak in his initial consonants. His voice was weak and slightly nasal. All of these faults are explained by loss of perception through reduced acuity along the pitch scale characteristic for these sounds. Here was a case of a boy losing a large portion of his hearing prior to his acquiring speech who was able to learn speech but only in an inadequate manner. His speech defect was largely in the region of consonants because the hearing defect was greatest there.

Pupil H lost her hearing between one and two years, probably from high fever or meningitis, according to the family report. Her speech was tested at the age of 10. Voice quality was nasal,

\* It is difficult to obtain the exact age of onset, at which time the child may have been older or the hearing loss less.



muffled, often indistinct; monotonous, poor inflection; too loud most of time, speaking or reading; reads with some inflection and interpretation. Articulation: closed vowels very nasal; long ee very nasal; semi-vowels n and ng confused; r omitted or indistinct. Consonants: omitted final b, p, n, t, k, g of ng, s, d, z, ch, sh. Initial and medial s and all blends faulty; for example, sk was w, k or t; spin was pin; small was "mall"; stick was "tick" or "sick" or "skick." She had no sh or ch. She showed extreme confusion either in hearing ordinary conversation or amplified speech between sounds p, t, s, k, sh, f and th. In language she omitted all s or z plurals such as in cats and dogs, and omitted all past tenses and the s in possessive nouns. Her hearing score reveals the close correlation between her acquired speech and hearing. Her vowels were nasal because of a loss in their characteristic region. Her voice was loud and monotonous because she did not know it. She omitted her final consonants because she had never heard them or heard them only indistinctly. This was proved by her extreme confusion in the soft sounds which are produced by soft breath stops or breath emissions without vibrations of the vocal cords. Any child with almost complete deficiency in the consonant region would have the utmost difficulty in acquiring these soft sounds through hearing without special coaching. On the other hand, her open vowels were satisfactory because she not only had more hearing in the vowel region but these vowels are the loudest speech sounds.

Pupil I had acquired her difficulty some time prior to attending kindergarten. Her difficulty was entirely one of vowels, most of which were quite nasal, muffled or otherwise imperfect. Her defect was in the lower pitch or vowel region. Her consonants were satisfactory because she had very little loss in the high or consonant portion of the pitch scale.

The discussion thus far has pointed out the direct relationship between speech and hearing defects. However, several other factors may influence the acquisition of speech spontaneously by the hard of hearing or partially deafened. The age of onset of injury to the hearing mechanism is very important. Speaking generally, the older the child at time of onset, the better the prognosis for good speech. For example, three children might have identically the same type and degree of hearing loss but acquired at progressively later ages. One might have no speech because he lost his hearing before acquiring speech. The next one might have fairly good speech because the injury occurred after his speech had acquired some stability. The third might have no speech defects because the speech habits were well integrated before the onset.

Various amounts of hearing loss acquired at the same age might have different effects on the acquired speech of children. A five-year-old child might receive such a severe hearing loss that his voice would be that of a deaf child. Another five-

year-old might have a less severe injury and show numerous speech defects. A third child might have a slight injury and a slight indistinctness in several consonants.

One other factor, however, can wreak havoc with the smugness with which these correlations are presented. A very intelligent child at an early age may acquire a substantial hearing injury and overcome these great odds to perfect herself within a normal environment in the arts of speech, language, social intercourse and citizenship. Another less intelligent child at the same age with less hearing injury may not overcome the smaller odds and require sight and touch training at a deaf school.

Several cautions must be offered at this point. Deafness may be one of a number of physical defects all of which have a common source. For example, the speech mechanism of a child may show a spastic condition in conjunction with deafness, as a result of birth injury. It would be difficult to trace all of the speech imperfection to the hearing injury. Cleft-palate children quite commonly have conduction deafness in more or less degree. The cleft-palate itself makes for a most severe speech handicap, and the deafness might be only a coincident. The important point is that these cases are less likely to improve promptly under training, if the teacher does not consider their reduced capacity to perceive the wanted speech sounds.

Speech defective children with normal hearing often cannot discriminate between similar speech sounds. They require much training in listening more carefully to the different sounds. If this is the case with normal hearing children, how much more difficulty have the hard of hearing children to distinguish between speech sounds!

Some children who cannot talk have been diagnosed as aphasic. Ewing has disclosed that some of these children are simply deficient in hearing. Since they do not hear the speech sounds, they do not speak although they will respond to various sound stimuli presented to them. However, precautions should be taken to distinguish between these two types of muteness.

Finally, there are many cases where it is difficult to decide whether the speech defect of a hard of hearing child is due to the hearing injury or to a retarded maturation which in itself may slow up the speech development. This is so often a factor in simple functional speech disorders that one is liable to suspect it is likewise mainly contributory to the speech disorder of a hard of hearing child. Perhaps both factors are responsible. But children with normal speech may suffer complete destruction of their inner ears as a result of meningitis or mumps at five or six years. These children's speech may have to be restored by training at a deaf school. Furthermore, severely deafened adults may acquire the voice of a deaf person, show indistinctness in consonants such as k and s and have either high or low pitched, and loud or

weak voices. Surely the well-integrated speech of an adult cannot lose its perfection on account of slow maturation!

Much help has been given the severely hard of hearing and partially deafened children to acquire speech through the use of amplifiers or group hearing aids in public and private deaf schools. Deaf children have been noted to improve greatly in speech and language within a school year. Those children who have the most residual hearing progress more rapidly than those with less hearing. This is final proof of the importance of hearing for speech perfection. No more fitting summary

for this paper could be given than the three epigrams:

Hear nothing, speak nothing.  
Hear poorly, speak poorly.  
Hear well, speak well.

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## DEAF—BUT NO LONGER DUMB

JOSEPHINE B. TIMBERLAKE\*

WASHINGTON, D.C.

"Doctor, can nothing be done to restore her hearing?"

"I fear not, sir. When scarlet fever attacks the auditory nerve, it often destroys it completely."

"But her speech—will she have to lose that too? She was talking a great deal before her illness; surely you cannot mean that she will become a deaf mute!"

"I wish I could encourage you, Mr. Hubbard, but I know you want the truth, and the truth is that a four-year-old child's speech is not established, and is soon forgotten if the hearing is lost. She is already talking very little, you see."

The anxious father was a prominent figure in New England; the doctor, any one of a dozen to whom he took his little daughter; the time, about seventy-six years ago. There had been schools for the deaf in the United States for nearly fifty years, but they taught their pupils to communicate only by the sign language and in writing. "No hearing, no speech," they all said.

But the learned gentlemen were failing to consider a force that has changed the apparent course of destiny on many occasions—the love and determination of an intelligent mother.

"My child *shall* talk," she told herself. And with no guide but her own resourcefulness, she began to talk to the little girl every day, earnestly and persistently, making sure that the child was watching her face as she spoke, and using words she had known before her illness. And little by little the light of understanding came back to the little one's eyes, and she began to remember and repeat the words she saw on the moving lips, and to learn new ones.

From this, and from the similar efforts of a few other mothers who did not know of one another's work, came the impetus that was to put speech-teaching in every school for the deaf in America.

The change did not come over-night, for the established schools were firmly entrenched, and though their authorities had heard of the use of speech with deaf pupils in Germany and England, they were strong in the belief that it was a waste of time. It was even held that attempts to teach the deaf to talk were attempts to overthrow the purposes of God, who would surely have given the children hearing if he had not intended them to be deaf and dumb!

In spite of all the antagonism, however, the mothers held to their purpose, and enlisted the support of friends; and when the public once began to realize that the vocal organs of a deaf child were just like those of any other child, and that the only reason he did not speak English was the same reason his father did not speak Chinese—because he did not hear it spoken all around him—the objections began to melt away, and in 1867 small schools were opened where the deaf were taught speech and lip-reading; one in Northampton, Massachusetts, one in New York, and a little later one in Boston.

There are many romantic stories—true stories—about the early work in promoting the teaching of speech to the deaf. One of these began in Scotland in 1847, when a little boy was born to a family in which speech was one of the most important concerns in life. The little boy's grandfather had taken a keen interest in the way speech is produced, and had corrected cases of defective speech. His son, the little boy's father, had made speech his profession, and had become the leading phonetician of his time, whose studies were so important that even today they are influential wherever the mechanism of speech is investigated. It was no wonder, then, that this boy, whose family called him Aleck, grew up with an accurate knowledge of the vocal organs, and how they move in making intelligible sounds.

\* Superintendent, the Volta Bureau, Washington, D.C.



When Aleck was a young man about twenty-three, his health became very poor, and his parents, who had lost their two other sons from tuberculosis, moved to Canada in the hope that the climate would be beneficial. The noted father was soon invited to lecture in the United States, and his fame as a speech teacher attracted the attention of the little group who were struggling to give speech to the deaf children of Massachusetts. When he was invited to come to Boston and address them, and other engagements prevented his doing so, he sent his son instead, saying that the young man knew as much about speech as he did, and had already experimented a little with deaf children in a small school in England.

And so it came about that Alexander Graham Bell began the work that was to influence not only the lives of the deaf, but your life and mine, and the lives of people all over the world. See how the threads weave together!

Speech for the deaf became Bell's greatest interest; his dearest hope an instrument with which they might *see* speech, might get a conception of rhythm, inflections, intonations. Working on experiments with this in mind, he made some discoveries which gave him the idea that a way might be found to send speech electrically over long distances.

Meanwhile, the little girl with whom this story began had become a young lady, and her prominent father had brought her to the young speech teacher as a pupil. He gave her only a few lessons before he realized that his interest in her was personal, not professional, and this sent him back to his electrical experiments with a new purpose—to make money. Abandoning his idea of making speech visible, he set to work to make it audible a long way off, over electric wires—and the telephone at your elbow tells you that he succeeded.

It reads like a fairy tale. He won the young lady. He became rich and influential. He placed much of his wealth, his time, and his gift of speech at the service of the deaf. He taught classes of teachers, he lectured at conventions, he appeared before legislatures. He established a center where information about the deaf and their problems could be secured, the Volta Bureau, calling it modestly not by his name but by the name of another inventor, because the Volta prize, bestowed upon him by the French government, provided the nucleus of its foundation. Finally, in 1890, he founded the American Association to Promote the Teaching of Speech to the Deaf.

What has happened in the years that have passed since then? Has the work gone on? Can a doctor today give more encouragement to his patients than the physicians were able to offer Gardiner Greene Hubbard in the eighteen-sixties?

Let us listen to a conversation that might take place in the office of any well-informed otologist:

"Won't he ever be able to hear, doctor? Would an operation cure him?"

"I'm afraid not, Mrs. Brown. No cure for deaf-

ness is known today. But he can become a happy, useful citizen."

"Will he ever talk?"

"Oh, yes, I think so. As soon as he is old enough, you can send him to the school at Butler."

"But, doctor, one of my neighbors sent her deaf boy there, and he has never learned to talk at all. She says his teacher just talks to him on her fingers."

"It is true that at Butler some of the children are not taught speech after a few months if they do not seem to do well with it at first. But at least seventy-five per cent of all of the deaf children in the whole country are in classes where all the instruction is given in speech or writing, and a great many schools never use signs or finger-spelling at all. If I were you, I would go to Butler and visit the school. Then go and visit some other schools. Listen to the children talk, and talk to the older ones yourself. Ask what their graduates are doing. You will find that nearly all are out in the world earning their living in competition with hearing people. Some have even gone from the schools for the deaf to graduate in high schools and colleges with hearing students. Talk to the superintendents and teachers, and decide for yourself which school you like the best."

"Sometimes I think Paul hears a little. Would it make any difference if he could?"

"I haven't found any hearing, but it is hard to be sure with such a small child. Maybe he has a little. Yes, indeed, it will make a great difference if he has."

"You mean he might learn to hear what we say to him?"

"Maybe so, maybe not; some of the schools are getting fine results with very little hearing since these group hearing aids have been improved so much. Even when the children haven't enough hearing to learn to understand speech through the phones, they often have enough to improve their own speech. They get an idea of fluency and inflection and accent that they can't get just from lip reading."

"Lip reading? What is that?"

"Oh, that goes along with speech. It means understanding what people say by watching their lips. The way some of these people understand when they can't hear a word is positively uncanny. Some of them do it better than others, of course, but all of them with good sight and good sense can learn enough of it to be mighty useful."

"But, doctor, about that hearing. Sometimes when the radio is turned on loud Paul will go and put his ear right up to it and seem to listen. And the other day when a soprano sang a loud note, he looked up at me and squealed and laughed."

"That certainly sounds as if he heard a little. Don't hope for too much, but keep at it. Encourage him to listen to anything he seems to hear."

"I would do anything in the world to help him,

doctor. But I feel so ignorant. I can't even make him behave sometimes. He is so restless and so naughty, and I can't explain anything to him. I just feel as if I would go distracted."

"Mrs. Brown, you musn't feel hopeless about it. Deafness is a bad business, of course, but there is a lot you can do right now to start Paul on the road to a good education and a happy life. I haven't time to tell you about it, but—here! Here's the address of a place where you can get all the information you need—The Volta Bureau, 1537

35th Street, Northwest, Washington, D. C. It's the headquarters of the American Association to Promote the Teaching of Speech to the Deaf. Those people at the Volta Bureau spend their lives helping people get the best of deafness. They write to the parents of children like Paul, and send them pamphlets about home training, and publish articles for them in a magazine, the *Volta Review*, and keep up with all the new hearing aids, and goodness knows what else. You write and tell them about Paul, and they will help you."

## MALADJUSTMENTS IN SCHOOL CHILDREN

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Since mental hygiene activities have drawn our attention to the development of the personality, we have become more alert to the school child and his problems. Formerly, if a child's behavior was not exactly commendable, we soothed our concern by saying, "He will grow out of it," "It's just a stage of growth," etc. Now we realize that "stages" do not explain it at all. We also know a child does not behave in a particular way just because he wants to, but that there are deeper reasons behind his conduct. It is necessary to note here that the same psychological laws operate behind anti-social or non-commendable behavior as behind behavior that is acceptable. Such understanding helps us to reach an objective point of view toward maladjustments.

The most important contributor to a child's personality is his home—the next most important is the school. Consequently, when a child enters school at the usual age of five or six, he has a considerable number of adjustments already made, be they good or bad. If he has had the good fortune to have already lived with stable, poised parents in a home that is calm and secure, the chances are that his school adjustments will be easy. Naturally, the converse is also true. However, though the home has the greater responsibility towards helping a child toward wholesome adjustments, the responsibility of the school is by no means minimized. Educators are well aware of this fact, and the whole philosophy of education has changed as a result. Formerly the school considered its job only that of training in skills and giving information; now the school is interested in the whole development of the child—intellectual, social, health, both physical and mental. As is often said, "The whole child goes to school." It used to be a rather notorious fact for a bright, well trained individual to leave school and be a failure because of poor personality traits.

Since we are discussing maladjustments in school children, it rather behooves us to understand what we mean by such maladjustments. It is interesting to note that there may exist differences of opinion in regard to this. E. K. Wickman, in 1932,

made an investigation of teachers' attitudes toward children's behavior. One of the problems he undertook was to find out what they considered serious behavior problems in school children. He asked 511 teachers to rate relative seriousness of a number of traits.

The overt forms of behavior like sex problems, stealing, untruthfulness, truancy, disobedience, were rated as the most serious and undesirable, whereas shyness, unsocialness, sensitiveness, fearfulness, suspiciousness, etc., were at the lower end of the scale. Thirty mental hygienists were also asked to make the same rating, with the result that they listed as most serious, withdrawing, recessive personality and behavior traits, and as the least serious, violations of orderliness in class and transgressions against authority. From above it is seen that for many teachers, if the child's behavior is agreeable, respectful to her authority, and does not offend her moral sensitiveness, it is considered desirable behavior. Such opinions are really not limited to teachers. Many people entertain them.

Wickman says, "When considered from an objective point of view, behavior disorders arise out of a discrepancy between the child's capacity to behave and the requirements of behavior which are imposed upon him by parents, schools, teachers, companions, and social organizations." Such discrepancy leads to emotional and social blocking with attendant development of behavior mechanisms.

Let us note some of the common causes of maladjustments in school children. First, physical factors must be considered. Chronic colds, sore throats, tooth aches, constipation, headaches, hernias, etc., are debilitating and aside from the physical effects they make the child ill tempered, pampered, selfish, egotistic, lazy, etc. A succession of ordinary children's diseases may produce personality traits, habits, and emotional attitudes of an undesirable nature. The glands come in for their share of attention also. Some types of behavior seem to be directly dependent upon their functioning. Encephalitis, if it does not produce



severe retardation, is almost certain to bring about marked personality changes. The child becomes anti-social, mean, unreasonable and cruel. Sensory deficiencies are responsible for a great deal of maladjustment such as nervousness, fatigue, inattention, stupidity, rebelliousness, etc. Orthopedic cases may feel inadequate and attempt to compensate. Often they are spoiled before entering school and receive too much sympathy of a maudlin sort. One must also always be aware of the possibility of congenital syphilis, particularly if there is much instability and a history indicating a gradual lowering of mental level.

The chief source of difficulty is a home situation extending over into school. I would be so bold as to say nine out of ten instances are of this character. For example, the over protected, dependent child comes to school unable to meet problems on his own. Often he becomes so accustomed to having his parents fight his battles for him, that he does nothing constructive, yet in his desire for attention he may be constantly annoying. One average normal ten year old has not learned to read, has been out of school much on physical pretexts, has been moved from one school to another, can never get along with other children, all because of a doting foster mother. One boy in our system, who for years had been considered the worst boy in school, was of this type. The mother always believed the school "picked on" her son, and resented the school even asking for her cooperation.

Other situations at home that produce emotional blocking are lack of harmony between parents, inconsistency in discipline, harsh and untactful criticism, illness in the home, financial worries in the home, apprehension in parent, child unwanted, etc.

Another very common cause of school maladjustment is entering the first year of school before the child is mature enough. This is particularly true in children who are slow and dull, but may be present in children with limited environmental stimulation. Experts now agree that immaturity is probably the chief cause in failure to learn the skills (reading, writing, etc.). The child is confronted with these problems before he has had enough experiential background. Consequently, he gets a "wrong start," and often does not recover throughout his school career. Instead of the matter righting itself in due time, the child sinks deeper into the mire and usually has to be pulled out by special means. Modern education emphasizes the futility of trying to teach a child a skill until he is "ready" or mature enough to undertake it. When he is "ready" he will learn in far less time and with far less expenditure of energy.

Another source of maladjustment is the child's first school experiences. Sometimes these are of such a nature as to affect the remainder of his school life. Two major adjustment problems for the child just entering school, have been mentioned by Boardman. The first is that of adjusting to new standards and requirements of behavior; the second is entering into new personal and social relation-

ships. If these adjustments are not satisfactorily made, feelings of insecurity and inferiority may result.

A factor by no means minimal is the teacher's personality. Next to the parent, the teacher is the most important person present in a child's life for some years. Consequently, if a teacher is a wholesome, well adjusted individual, the pupil will tend to respond to her similarly and thus will learn good emotional habits. The opposite is just as true. In reality, it is not surprising that teachers have difficulty in maintaining good mental health. In the first place they often go into the profession with little aptitude or interest in it. In times past it was thought that if anybody could get through school himself, he could teach. Secondly, a repressed life is imposed upon the teacher. She must please everybody and such an effort is not without strain. Often she must hurry through work to meet curriculum demands and has no time to stop a moment and minister to personality needs of the children. Furthermore, many of her own personality problems are unsolved. This leads to prejudices and poor attitudes. For example, if she herself grew up feeling inferior, she may compensate in the school room by becoming practically tyrannical, and resenting all questioning of her authority.

Frances Mason, in 1931, made a study of seven hundred maladjusted school teachers, and found that very few of them had ever evinced any interest in sports, music, travel, theater, or dancing. They also were not successful in making social contacts—about one-half of them were shy, sensitive, and seclusive, and the other half decidedly egotistical. Furthermore, Dr. Mason found the traits of efficiency and ambition to be frequent among these teachers. She remarks, "No doubt ambition and efficiency are of distinct value when possessed in moderation. The too efficient person, however, in any walk of life is too stereotyped, too boring, too detrimental to growth, to be of value."

A very real cause of maladjustment is failure and the fear of failure. Ideally, a child should progress at his own rate and be given learning problems with which he can cope. As he succeeds he will be motivated to try for further success. Many children early develop feelings of inadequacy because they have been told they are "dumb," are constantly compared to brighter children, are nagged and punished for failure they cannot help. From these feelings of inadequacy may rise definite problem behavior.

Fatigue may be a factor often overlooked. Fatigue is disintegrating and leads to irritability, shrinking from responsibility, restlessness, etc. The demands on many children in this modern life are excessive, and fatigue is likely to result unless especial care is taken in regard to sleep, rest, etc.

The causes of maladjustments can be summarized briefly into the following: They almost invariably result from a blocking of the desire for mastery

or achievement and the desire for social approval. These two motives, although no longer recognized as a part of the native equipment of the individual, are nevertheless learned early and are very powerful. If they are blocked, a state of emotional tension arises, and persists until some type of behavior is hit upon that gives psychological satisfaction. Behavior thus arising may be satisfactory in the sense just described, but not socially acceptable. Such children we call maladjusted.

Our thesis now turns to the question of how to deal with maladjustments. From summary of causes just described, it is easy to conclude that satisfying these fundamental motives is of first importance. However, this is not always easily done. It requires considerable study of the individual and sometimes requires the help of an expert. A history of the case is indispensable. One must know all the aspects of family and school life. There is never any possibility of knowing too much history and considerable danger of knowing too little. Physical aspects of the case

must be investigated. Mental level, aptitudes, and disabilities should be known. Interests, likes and dislikes, and emotional reactions are also part of the picture. When all these are gathered there is usually some indication of where the trouble lies. Action is taken upon the most probable of these. It is necessary to have an experimental attitude, to be willing to keep looking for the disturbing factor until it is found.

A very important aspect of maladjustment is its prevention. In our modern programs we foresee and forestall as many as possible. In our South Bend School City, for the past three years, we have been directing especial attention toward children in the early elementary grades. A personality record has been devised, which is kept for each child, thus leading the teacher to be alert to the adjustments each pupil is making. This is, without argument, a much more constructive method of dealing with maladjustments than merely to wait until some problem arises and then attempt to solve it.

## EMOTIONAL PROBLEMS IN CHILDHOOD

Third of a series of articles on Child Health sponsored by the Indiana Pediatric Society

The importance of understanding the significance of behavior is being recognized more and more by the practicing physician as an essential part of his therapeutic equipment. This has come about as studies and common experience have revealed that people are not composed of "physical" on the one hand, and of "mind" on the other, each as a phenomenon isolated from the other, but rather that these two are so closely related as to be intrinsically inseparable. Modern concepts lead us to see "mind" and "body" not as two separate entities but as closely intertwined and inter-related parts of the person. A patient, then, is to be seen as an individual who is the integral or unified result of these associated parts. As practitioners of the healing art we feel responsibility for our patient, and when we have an understanding of the patient, first and essentially as a "person," this responsibility becomes inextricably associated with a broad understanding of the patient and his symptoms from the standpoint of the total "psychosomatic" functioning of the individual, in contrast to a too frequent, isolated, somatic approach.

This understanding of our patients is essential. Somatic illness frequently is accompanied by personality disorders such as the toxic deliria, coma, personality changes of early paresis, the irritable, unstable hyperthyroid patient. Conversely, physical complaints may be the presenting symptoms of some emotional disorder but the patient comes to the physician for help. We know, for instance, that anxiety is often accompanied by palpitation

of the heart, constriction of the throat, difficulty in breathing with fear of dying, and gastrointestinal symptoms. The patient may present himself to the physician for these physical expressions of his anxiety. The physician may be baffled by the wealth of physical complaints for which he finds no organic basis, unless he sees his patient as an integrated *psychosomatically* functioning individual. One 12-year-old girl was sexually assaulted by an old man. She was frightened by the experience, and too ashamed to tell her mother. The fear and anxiety accompanying the experience gave rise to palpitations of the heart, feeling of suffocation, and fear of dying. The cardiac response to an emotional upheaval became the presenting symptom and the concern of the mother and the doctor. In spite of lack of physical findings the doctor, not being psychosomatic in his understanding, felt that physical complaints were therefore of somatic origin, and put the child to bed because of her "heart trouble."

This was only the beginning, for the mother and child were so fearful of heart trouble that for months afterwards the child was an invalid, fearing to walk at even ordinary pace because she was told she might "drop dead" if she exerted herself. Assuming the delicate air of an invalid and coddled by an anxious, fearful mother, she became finicky about food, lost weight, and developed a marked secondary anemia, which in turn became an added physiological cause for weakness and lassitude. Of course, she was kept



from school, and isolated from association with playmates. A physician with a broader concept of medicine would have recognized the anxiety syndrome or at least had some curiosity as to something other than organic illness and avoided months of invalidism in his patient.

We may designate, then, (1) real physical illness with personality involvement, and (2) personality or behavior disturbances with or without physical complaints.

(1) The personality implications of physical illness are omnipresent. The attitude of the patient toward his illness, and the doctor's role in presenting a healthy (not fear-instilling) interpretation of the illness are most important considerations. Not infrequently it is felt that a "good scare" will make the patient obey medical orders. A doctor who carefully cultivates the confidence of the family and patient has no need for resorting to such tactics. It is a challenge to the doctor to cultivate this relationship rather than to be too glib in saying "uncooperative patient."

Naturally during acute illnesses, the focus of attention is on the illness. The convalescent period, however, is most vital. Many patients, when well, derive enough happiness and satisfaction from life to prefer being well. This sort of patient has an "uneventful recovery" in all respects. Other patients get "caught" in illness because as a sick person they get satisfactions of which they are deprived as well persons. What, then, are some of the personality involvements of illness? The patient gets a great deal of attention, affection, and concern from the family, which he may be reluctant to give up, so he continues his physical complaints long after the physical illness has disappeared. Or, it may be that illness allows him to avoid facing certain painful life situations, and prolongation of his physical complaints becomes a means of avoiding them further. When a convalescent patient, then, continues complaining without adequate physical basis, we must ask ourselves, "What does this person get as a sick individual that he does not get as a well person?" The possible answers are legion.

Bobby was a well adjusted 8 year old boy, oldest of three children. He developed an acute otitis media (right) and as a sick child became the focus of the family's attention and concern. Frequent visits from the doctor, and the presence of two nurses added to the attention given Bobby, and rightly so since he was acutely ill. However, after the temperature dropped, fear of mastoiditis gone, the family gradually shifted back to their old routine. Convalescent Bobby, however, suddenly complained of severe pain in the left ear and for 24 hours again everything was dropped to worry over Bobby. Physical examination revealed no infection of the ear. In view of this, the parents and doctor held conclave and wisely saw Bobby's position. They recognized the child's reluctance to give up being the center of attention, and that attention is a legitimate need but one which should be given through healthy channels and not through illness. Healthily, they decided to ignore Bobby's symptoms while also gently nursing him back into family

activities from which he soon was deriving satisfaction as he had as a well child.

This was a crucial period, for if Bobby had been successful in obtaining attention through physical illness, a pattern of hypochondriacal complaining might well have been started.

Ruth, 12, oldest of three children, had a severe hemorrhage following a tonsillectomy. She was of somewhat unstable make-up with a tendency to over-react to a situation. The hemorrhage was reacted to with fear and feelings of constriction of the throat. The parents were very worried and made themselves available to her every need. Transfusion was done and it seemed that Ruth should have recovered shortly, but exaggerated fear of another hemorrhage, anxiety (with typical anxiety syndrome of shortness of breath, palpitation of the heart and fear of dying) and sensations of constriction of the throat continued unabated for weeks. The parents remained terribly concerned. Physical examination revealed no cause for the complaints. Brief conversation with Ruth easily revealed what she was getting as a sick child which she did not have as a well child. She was devoted to her parents and they used to have many good times together. In the past few months, however, her parents had become estranged. Daddy played golf, and worked late at nights. The mother acquired a boy friend and spent most evenings in a near-by tavern, coming home raucously drunk. Ruth had pleaded with her parents to stay home as they used to but they were so involved in their own emotions they paid no heed. Then, Ruth had her illness and here was a solution, for now the parents stayed home and a semblance of family unity was restored.

Ruth's insight at the beginning was a smug, "Yes, Mother and Daddy are quite worried and we play games"—wistfully, "like we used to." I wondered if she thought they would do this if she were well. She answered thoughtfully, "No." And after a few moments of study, "You say my throat is all right but there must be some other reason for it hurting. Do you suppose it is because I want Mother and Daddy to stay home together and play with us—like they used to?" And here was the answer, for if Ruth got well she would have no means of holding them together, so she remained ill. As a matter of fact, Ruth will probably not get "well" until some solution to her parents' marital discord is found.

Neither Bobby nor Ruth is to be accused of "putting on" for we see reasons. A "diagnosis" of malingering or "putting on" is irrelevant and etiologically unrevealing. The challenge is always to ask, "What does it mean to this patient?"

There are other areas showing the importance of personality implications of organic illness. Physical handicaps such as orthopedic conditions, cardiac diseases, diabetes or renal disease requiring a certain dietary regime, asthma, etc., when viewed solely from the somatic angle, place emphasis on the child's limitations. There is a tendency to plan the child's life around what he *cannot* do. Parents and doctor "feel sorry for" the child, become over-protective, constantly remind him of his physical limitations, make an invalid of him. What effect may such handling have on the child? He will probably see himself as a pitiful invalid,

too, use his handicap as a plea for attention, or as an excuse from social contacts with children with whom he cannot compete successfully, or retire into excessive day dreaming to fill out an unexciting, uneventful, unsatisfactory life. On the other hand, if a patient is seen as a *person*, the approach will be: "Here is a child who has certain limitations, but within those limitations he *can* do—" and a regime of activity and social contacts in accordance with his ability are outlined. Games, handwork, things from which he may achieve satisfaction and develop an engrossing interest place a constructive (rather than inhibiting) emphasis on the situation.

Needless to say there are many neurological and physical diseases with presenting symptoms in the realm of behavior rather than physical complaints. The behavior, then, should not be our chief concern, but rather the physical status of the child. *Every child with behavior problems or personality maladjustments deserves first of all a thorough physical examination.*

Since our approach to the study and understanding of any piece of behavior is to ask ourselves, "Why does this child behave as he does?" we see that the physical status is only one realm to which we look for etiological factors. There are others, namely, intellectual, emotional, and environmental. I should like to emphasize, however, that although we examine one or another realm, we must always keep in mind the relative influences of the others. To isolate one from another is artificial for in the living organism we see their inter-related and inter-dependent functioning.

What is the effect of intellectual endowment on behavior? A retarded child may (or may not) be slow in learning habit training, in learning to talk, to care for himself in play, slow to take on responsibility. Such a child must be allowed to take his time in developing. Pushing him beyond his capacities to learn new habits arouses anxiety or tension (as seen in restlessness, motor over-activity, ties) or open rebellion against parental pressure (tempers, disobedience, etc.) Because of varying capacities, mothers should not be taught rigid time limits for training the child, for if her child should happen to be one to develop slowly she becomes worried, fears her child is abnormal, and exerts great pressure to see that he develops as the doctor has prescribed. The pressure results are seen in a variety of untoward behavior. One 12 year old girl with the intellectual development of a child of 5½ was brought in because of her disobedience and temper tantrums. These had been developing in the past few months. When was she disobedient? and at what time did she get angry? The mother says that Edna's play interests were those of a very young child but "now that she is getting older I expect her to help me more." The mother would assign several small tasks to the child. Invariably she would do the first task and then wander off to play and when her mother sharply reprimanded her and reminded her of the undone tasks, Edna became cross and often refused to do

them. Now the important thing is that Edna invariably did the first task willingly. Telling her several tasks constituted more than Edna could remember. When confronted with her failure she reacted with a response which is common and that is, defensiveness, anger, and stubbornness. It was pointed out to the mother that she was thinking of Edna as a 12-year old child but that her play and general childishness indicated more that one should think of her as a much younger child and expect more simple performances. If the mother's experience showed that Edna could do well one or two things at a time, it was wise to limit her to these, and add others only as she finished. Pressure beyond Edna's capacity was thus relieved and two months later when I saw them the "disobedience" and temper tantrums had disappeared.

Untoward behavior sometimes finds its roots in improper school placement. A retarded child pushed along in school finds school difficult and unsatisfying. Unable to get his lessons, he occupies himself by throwing spit balls, teasing neighbors, assuming a facetious or "I-don't-care" attitude to cover up his inability, hooking school in order to remove himself from the uninteresting classroom. On the other hand, a very intelligent child in ordinary grade may whip up a lesson in half the usual time and have the rest of the hour to be a "pest;" or he, too, knowing he can easily make up his lessons, may "hook" school in order to do something more fascinating. Either child may have few friends of his own age, because the same age group has little in common with the retarded child, who prefers playing with younger children, or the superior child who has more diversified and mature interests. Such a child is an unhappy child, and it is a challenge to the schools to have special classes, or at least a plastic curriculum which will more nearly meet the needs of every child.

To understand maladjustments having their roots in *emotional* difficulties necessitates an understanding of the growth process from infancy to maturity. Growth occurs around and in response to the mother for at first the infant is totally dependent on her for his physical comforts, food, affection, security. Growth away from this total dependence to the more or less complete self-dependency of maturity occurs as this mother-child relationship permits separation. This is dependent on the two persons involved. Usually the mother encourages the child to do more and more things for himself as his physical development allows. He learns to walk, talk, feed himself in response to the mother's encouragement, and the child tries, in spite of his failures, for he wins maternal approval and expressions of affection with his successes and her encouragement to try again with failures. This same process (1) maternal encouragement, guidance, security, and affection, and (2) freedom to test his abilities and experiment with his own capacities as they develop is also seen as the child learns to dress and bathe himself, care for



himself in play, cross streets judiciously, make some of his own decisions, choose his own friends, and assume responsibility for his relationship to others.

Usually the child responds to this regime and growth proceeds fairly uneventfully. However, there are many variations, most of which are to be considered variations within the limits of "normal."

A child may find difficulties in this growth process as the mother is too solicitous, continues to do things for the child rather than to shift the responsibility gradually to him, viz., child of 8 or 10 whose mother still bathes and dresses him, does most of his thinking, and generally keeps him an infant through her hovering and oversolicitude. Such handling contributes to poor school and social adjustment since the child has not been taught a give-and-take attitude, is basis for a willful, spoiled-child reaction, and maintenance of infantile behavior such as clinging dependency, enuresis, fear of social contacts, etc.

On the other hand, the mother may give too much freedom which places undue responsibility on the inexperienced, undeveloped child.

The child may also get caught in this growth process as he himself is reluctant to take on growing responsibilities and so demands more protection from the mother, thus keeping himself infantile; or he may want to pull away from healthy maternal protectiveness and demand freedom beyond his capacity to handle it.

It is important that mothers recognize the need for balance of these two factors and gently and consistently apply them to the child's growth steps.

If a mother is either oversolicitous or rejecting (too much freedom) we may ask, "Why is she so?" Often the dependency of the infant satisfies the ego of a mother so that she wants to keep the child forever a baby; or she has interests only in the home and child and therefore cannot bear to let a child "grow up and leave me," for it means an empty place in her life. Such a mother should be encouraged to participate in at least a minimal number of church, P.T.A., or social activities. A woman whose marital relationships are unsatisfactory turns to the child for her affection and satisfaction and so must keep him close through keeping him a baby. Or, a mother may be oversolicitous because she did not want the child in the first place, but her guilt feelings call for over-compensation in showing excessive solicitude rather than open rejection.

The mother who gives too much freedom; *i. e.*, rejects the child and does not want to take responsibility for his training may do it because she wants to be a "modern mother" and has "read a book" endorsing "freedom." In such a case she has either digested the reading material poorly, or failed to use her own common sense. Rejection may occur toward an unwanted child or toward one arriving in the midst of some marital discord and the mother rejects the child who is a symbol of the marital relationship.

To return to the nature of growth and seeing it in the light of a process of ever increasing shifting of responsibility from mother to child which occurs in response to the type of mother-child relationship existing, we see that subsequent additions to the family may cause a temporary ruffle in the child, for "here is a new baby to take mother's time and attention and where is that going to put me?" Not infrequently with the birth of another child, the child may again become enuretic (reversion to infantile behavior), finicky about food, or demand much attention of the mother. If the mother is successful in making the child feel security in her continued affection, the phase will pass; if not, it may continue.

Adjustment of the child to the family group and subsequent affectional ties with its members comes first as it is seen that the mother accepts them, and later as the child himself does so.

*Environment* plays an important role in personality development. Children from poor homes with limited or irregular incomes have inadequate diets, are therefore more prone to illness and the personality difficulties accompanying them. Parents concerned with lack of finances may be too worried to give their children warm affection, and, feeling little security themselves can give little to the child. Inadequate homes with their economic insecurity and anxiety deprive the child of the stable, unified, secure background which is essential for healthy growth. A girl who cannot bring her date home to a house full of kids meets men in the park or on the streets, and the promise of a dress or some financial remuneration easily leads to prostitution. A boy finds little encouragement from his worried parents and seeks recreation and satisfaction in gang activities which may land him in Juvenile Court.

The dynamics of any particular case requires individual study. Following are two cases:

Case I. Billy, 6, came to hospital with complaint of severe frontal and occipital headaches. Physical and neurological examinations were negative. Headaches began 6 weeks ago, were more severe in the mornings. Aspirin did not help but cold cloths put on by mother did help. Headaches were so severe that Billy could not go to school. What was the setting for the complaint? "Six weeks ago" happened to coincide with the beginning of school. What, then, did this first school experience mean? Separation from the mother who said Billy had always been especially attached to her. "He acts more like a four-year-old!" Billy himself stated, "Oh, I never have them (headaches) on Saturday and Sunday!" It turned out that the timing of his headaches was a most important clue, for he had headaches only on school days and only since the beginning of school. A baby brother had been born in June and the mother had noticed that Billy, since then, was even more clinging.

Billy said smugly that his headaches were so bad that, "I can't go to school!" Then he said anxiously, "When I am at school I never know what my mother is doing, and what she is doing with my baby brother." I supplemented, "So when you have headaches you don't have to be away from your mother," and he nodded. Head-

aches, then, though real subjectively, were Billy's solution to an unhappy school situation which meant separation from the mother.

Why was Billy so dependent? Psychological examination revealed that Billy had the mental age of a child 4½ years of age. A child 4½ years of age is more emotionally dependent than a 6 year old child. Furthermore, first grade is too hard for Billy now. He cannot compete satisfactorily with 6 year olds. Emotionally and intellectually Billy is too young to go to school. His headaches were an attempt at solving his problems. Removing Billy from school, acquainting the mother with the fact that Billy would probably be slow in becoming more independent, resulted in complete disappearance of Billy's headaches.

Case II. Don, 8, an only child of superior intelligence, was enuretic, quarrelsome, and rebellious. His father, acting like an argumentative child, too, kept their fighting at white heat. Being emotionally upset, Don did poor school work. The father made an issue of this, so Don's rebellious behavior spread to school. The father-son quarrel started three months ago and so did Don's enuresis. In June when Don was failed, he said sullenly, "They ganged up against me and flunked me (true) but I'm not going to work any harder next year—if I go to school!" Then his face brightened and he said gleefully, "I know how to get even, I'll just stay home and wet the bed!"

Thus, enuresis is often one of several symptoms indicating rebellion and aggression (children frequently use wetting aggressively in their play). Therapy is directed not toward the enuresis but toward straightening out the father-son quarrel. Enuresis may also be part of the whole picture of prolonged infancy as indicated earlier.

In summary, points which will help in the understanding of personality maladjustments are:

- (1) The modern concept of an integrated mind-body relationship is more factual and dynamic than the old concept of "mind" and "body" as isolated entities.
- (2) Personality growth essentially is a process involving the emotional ties of a mother-child relationship in which the totally dependent infant gradually develops into a more or less self-dependent mature adult.
- (3) "Behavior problems" or "personality maladjustments" are to be seen as *symptoms* requiring further study.
- (4) "Behavior" always has meaning.

## ABSTRACTS

### SULFAPYRIDINE TREATMENT NOT YET PERFECTED

The general use of the derivative of sulfanilamide, recently designated "sulfapyridine" as a nonproprietary name, does not seem to be warranted at the present time, the Council on Pharmacy and Chemistry of the American Medical Association, together with Perrin H. Long, M.D., Baltimore, reports in the Feb. 11 issue of the Association's *Journal*.

The preliminary report of the Council states that: "The Council has given consideration to a report on the status of this drug prepared by Dr. Perrin H. Long of the Johns Hopkins Medical School. The Council agrees with Dr. Long's conclusions; it feels that in the light of available evidence the general use of the drug does not seem to be warranted at the present time. The Council feels that because of the definitely experimental status of the drug it should be used only by properly qualified persons for investigations of its value in pneumococcal, severe staphylococcal and Friedländer's bacillus infections. The Council expresses its appreciation of Dr. Long's aid and authorizes publication of his report as a preliminary statement on the status of sulfapyridine."

Dr. Long, who was a pioneer in introducing the therapeutic use of the drug sulfanilamide to the United States and who is considered one of the leading authorities on it, summarizes his report on sulfapyridine by stating that:

"On the basis of the available experimental and clinical evidence, careful treatment trials of the effects of sulfapyridine in pneumococcal, severe staphylococcal and Friedländer's bacillary infections seem warranted.

"Good evidence is not at hand that the drug is as effective as, or superior to, sulfanilamide in the treatment of hemolytic streptococcal, meningococcal, gonococcal or Welch bacillary infections.

"The drug is irregularly absorbed and slowly excreted. The toxic manifestations of the drug seem to be as severe and as frequent as those witnessed in the course of sulfanilamide treatment.

"Rational schemes of treatment with this drug have not as yet been presented."

### TYPHOID IN THE LARGE CITIES OF THE U.S. IN 1937

As in the preceding annual reviews, data for the twenty-sixth annual report on typhoid (*Journal A. M. A.*, July 30, 1938), have been obtained from the same ninety-three cities for which the annual statistical tabulations have been made. A communication addressed to the health officer of each city requested not only the total number of deaths from typhoid during the year 1937 but also a statement as to how many of these were among nonresidents. Furthermore, a comment was invited on any special outbreak of typhoid or any unusual protective measures taken to guard against this disease. The fourteen New England cities as a whole (population 2,640,933) again report the lowest rate for any group. Their rate of 0.45 is not quite as low as that of 1936 (0.42). There were recorded twelve deaths in 1937 (but eleven deaths in 1936). The Middle Atlantic states (eighteen) have a group rate which is but slightly less than for the preceding two years (0.51 in 1937, 0.56 in 1936). The record for the nine South Atlantic cities is not as good as for 1936 but continues to show a marked improvement over the rate for 1935 (1.96 in 1937, 1.55 in 1936, 2.58 in 1935). The eighteen cities in the East North Central states continue to remain in third place, first place being maintained by the New England group and second place by the Middle Atlantic. The six cities in the East South Central group show a marked lowering in the death rate (3.35 in 1936, 2.1 in 1937). The West North Central group (nine cities) again report substantially the same number of deaths as have occurred during the past two years (twenty-one in 1937, twenty-two in 1936, twenty-three in 1935). The eight cities in the West South Central group show a marked improvement over the rates for preceding years (2.34 in 1937, 3.99 in 1936, 3.82 in 1935). The eleven cities in the Mountain and Pacific states show a continued reduction in the rate (0.68 in 1937, 0.8 in 1936). The number of cities with no death from typhoid has increased to twenty-seven. In 1936 there were but eighteen such cities. For the seventy-eight cities for which complete data are available since 1910 there occurred 280 deaths from typhoid in 1937, which is the lowest of record (336 in 1936).



# MENIERE'S DISEASE: ITS DIAGNOSIS AND TREATMENT\*

WALTER E. DANDY, M.D.

BALTIMORE, MD.

Perhaps I might say a brief word about the early history of this disease. It is named for a Frenchman, Ménière (1861), who assembled the symptoms into a syndrome that now bears his name. The symptoms had long been recognized, but not assembled into a well defined group.

Mohammed is said to have had attacks very much like Ménière's disease. Whether or not these attacks were actually of this type is rather difficult to prove. Martin Luther definitely had them, as did also Jonathan Swift, the great English writer.

Those who are interested should read the autobiography of one of America's distinguished men of letters, Gamaliel Bradford, who was a victim of this disease in the latter half of his life. If you wish to appreciate the terrors which these patients may endure it is only necessary to read of his typical attacks which he so aptly describes as the "swoop of the hawk."

These attacks come on precipitately like a bolt of lightning. Once you have heard the story it is scarcely necessary to see the patient, for the diagnosis is unmistakable.

Ménière's syndrome is simply this: sudden, recurring attacks of dizziness in which objects whirl. With the dizziness there is usually nausea and vomiting. There is also tinnitus in one ear, and that ear is subtotally deaf.

Very frequently, in addition, there are sympathetic nervous disturbances; there is frequently a feeling of fullness around the affected ear; there may be a radiation of pain over the head, giving the sensation of headache, or it may be an actual pain; or the pains may radiate down the arm on either side.

Ménière's disease may begin with dizziness, tinnitus and deafness all at once, or it may begin with any one or two of these three symptoms. The first symptom may antedate the other two for many years, or for many months. Once Ménière's disease begins, it never ends spontaneously. There is an old statement dating back to Charcot of France that when the ear becomes totally deaf the attacks disappear. That may occur, but it must be very rare; I have never seen it so. I have seen several patients who were totally deaf, but still the attacks continued. The dizzy attacks are, of course, related only to the vestibular branch of the auditory nerve and not to the cochlear branch. As a matter of fact, both branches of the nerve are involved in Ménière's disease, but the dizziness is only referable to the branch of the nerve that controls equilibrium, and therefore it would not matter if the patient were totally deaf. So long as there is

function remaining in the vestibular branch, the attacks will continue.

I should like to emphasize the fact that this disease *never* cures itself spontaneously. This is important in that it dictates the line of treatment. The second thought that I wish to leave with you is this: Ménière's disease is never the result of a middle ear infection; nor is it the result of a focal infection referable to the teeth, sinuses or other situations. That means that physicians should not indiscriminately open sinuses and remove teeth in the hope of relief. We know that it never follows middle ear infection because in all but a small percentage of cases there has never been a middle ear infection; and, furthermore, in going over a great run of cases of middle ear infection one does not see Ménière's attacks. We now know that it is impossible to produce recurring spasmodic attacks of dizziness or of pain such as one gets in trigeminal neuralgia except by a lesion in the upper sensory neurone. A lesion of a peripheral nerve cannot produce paroxysmal attacks; the lesion must lie in the nerve between the sensory ganglion and the brain stem.

These attacks are due, therefore, not to a peripheral lesion, nor to one in an end organ lesion, but to one in the auditory nerve or the brain stem. Moreover, we know this to be true because both the vestibular and the cochlear branches of the nerve show subjective and objective changes, and this would be well nigh impossible if the lesion were in the end organs where both the semicircular canals and the cochlea are at some distance apart.

The suddenness of the attacks was known to Ménière, and he was very anxious to find a pathologic explanation for them. In 1861, when pathology was quite an immature field, one of Ménière's patients died with an acute labyrinthitis, which is quite a different story, showing that Ménière was not very clear concerning his own syndrome. This patient was constantly dizzy for a period of perhaps a week or ten days, when she died of an acute spreading infection that extended from the middle ear into the brain. He found at necropsy a sero-sanguinous exudate in the labyrinth. He immediately came to the conclusion that the same pathological findings would obtain in Ménière's disease. At that time epilepsy was considered to be due to an apoplexy, that is, sudden hemorrhage. With the bloody exudate in the middle ear he thought the hemorrhage (the blood-stained exudate) was responsible for the attacks just as hemorrhages were responsible for sudden epileptic attacks. Bacteriology was, of course, then unknown. Pasteur's work had not begun.

This is the explanation for the statements in textbooks that Ménière's attacks are due to apo-

\* Presented before the Section on Medicine of the Indiana State Medical Association at Indianapolis, October 5, 1938.

plexus in the internal ear. Such an explanation would be perfectly absurd, for there is no possibility that a hemorrhage could consistently precede every attack and occur in the same ear.

There have been no cases of Ménière's disease, so far as I know, in which the brain or the internal ear has been examined postmortem. Patients do not die from Ménière's disease, but always of other causes. But their life is unbearable while it lasts.

In about 10 per cent of the cases this disease becomes bilateral, just as trigeminal neuralgia becomes bilateral. If bilateral, there are the same disturbances in both ears—tinnitus and deafness.

#### DIFFERENTIAL DIAGNOSIS

From what lesions must a differential diagnosis of Ménière's disease be made? Only one, namely, pseudo-Ménière's disease. In pseudo-Ménière's disease there are exactly the same dizzy attacks, but without loss of hearing and without tinnitus. It is quite probable that pseudo-Ménière's disease is but a beginning Ménière's disease in which the tinnitus and deafness have not yet appeared. The differential diagnosis is important only for treatment, which I shall mention shortly.

Another lesion which perhaps should be emphasized in differential diagnosis is a tumor along the auditory nerve. Patients with Ménière's disease show only two, and frequently only one objective finding. Both are referable to the eighth nerve. They have loss of hearing in one ear, which may be graphically shown in an audiogram (Fig. 1), and they may or may not have a diminished caloric reaction, that is, nystagmus induced by irrigations of the ear with hot and cold water. Vestibular tests, however, are capricious and not particularly important.

An acoustic tumor, that is, a tumor arising along the eighth nerve, gives precisely the same signs in the early stages of its growth, namely: loss of hearing and at times diminution of caloric response. As the tumor grows, loss of corneal reflex and other tell-tale neurological signs make the diagnosis clear.

In both Ménière's disease and acoustic tumors, therefore, one obtains the same objective findings,

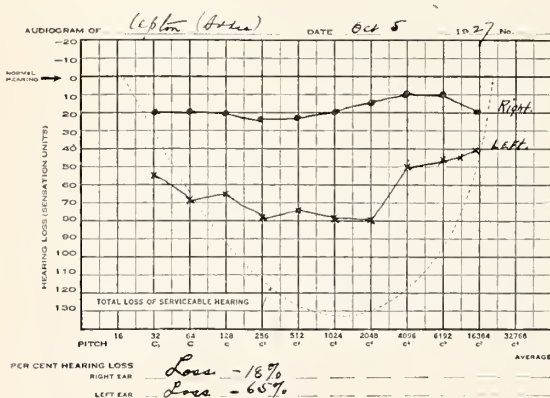


Figure 1.

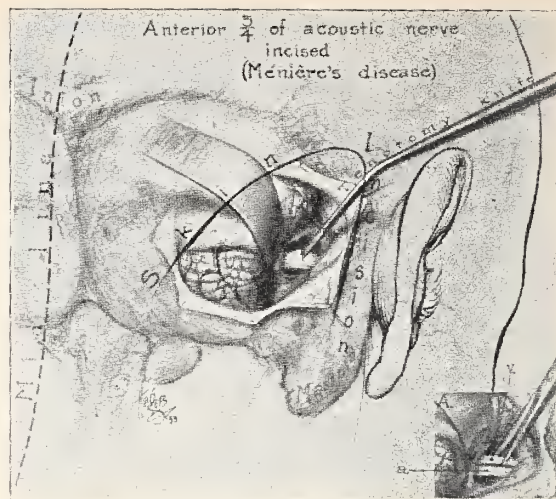


Fig. 2. Sketch showing partial division of the auditory nerve, i. e., division of the vestibular branch, which comprises the anterior half of the nerve. This leaves the auditory branch intact, or practically so.

but in a tumor one does not see the dizzy attacks. The dizzy attacks, in other words the symptomatic story, indicate Ménière's disease and exclude a tumor.

#### TREATMENT

What is the treatment for Ménière's disease? One can cure Ménière's disease just as absolutely and as perfectly as one can cure trigeminal neuralgia, more perfectly in fact, because one loses absolutely nothing in the treatment.

About ten years ago we began dividing the entire eighth nerve on the affected side for Ménière's disease; this cured the attacks. It, of course, destroyed any remaining hearing which, however, was not very important. A few years ago a railroad conductor appeared with typical attacks. He was not able to carry on his work because of these attacks, but if he were cured of them and lost his hearing he would lose his position on the railway. Since there appeared to be no good reason why division of the cochlear branch of the nerve should in any way have a bearing on the dizzy attacks, only the vestibular branch of the nerve was divided, thus leaving the hearing intact, and the result was precisely the same. He was cured of these attacks, and with the hearing that remained, he was able to resume and maintain his position on the railroad.

Since then we have usually divided only the vestibular branch of the nerve. There have been 264 cases: of these the vestibular branch alone has been divided in 125 cases. I have been able to detect no difference whatever in the results and it has this advantage: one never knows when the disease may become bilateral, and if the hearing is gone in one ear a big responsibility rests upon the preservation of hearing in the other ear.

The operation as now performed, therefore, is the division of only the vestibular branch of the eighth



nerve. (Fig. 2.) The nerve is not divided into two separate, discrete branches. There is one trunk with no sign of division into component parts, but one can cut half or five-eighths of the nerve, the anterior part always, and this will include all the vestibular fibers.

A very interesting and comforting fact has been disclosed as the field has been intensely cultivated, namely: that if three-fourths or even four-fifths of the entire auditory nerve is divided, the hearing still remains perfectly or almost perfectly intact. In other words, the fibers in the eighth nerve that control hearing are so redundant that the preservation of only a fraction of the whole will retain hearing. The same observation holds for tumors also. We have often wondered how patients could hear at all when tumors have destroyed such a large cross section of the nerve. The answer is now clear from these experiments. There are many more fibers than are necessary. Precisely the same results have obtained in sectioning the sensory root of the fifth nerve for trigeminal neuralgia. After division of over half of the sensory root, sensation to the face will remain intact.

The end results in the treatment of Ménière's disease have been practically perfect. (Fig. 3.) There is no loss of function, no permanent disturbance of equilibrium, and the attacks are abolished. There has been no death in the entire series of 264 cases.

Now a word about the bilateral cases, about 10 per cent so far, though doubtless in the end this percentage will be higher. We have operated upon ten bilaterally. One of these was a case of pseudo-Ménière's disease, but his attacks were so frequent and so severe that he felt unable to continue with them. Both the right and left vestibular branches

were divided at the same operation. Division of both vestibular nerves destroys, I think, any possible sensation of dizziness. One of these patients crossed the ocean since the operation, and although practically every one on board was seasick, she had no sensation of sickness whatever. An easy cure for seasickness!

Those patients in whom both nerves have been divided do have some disturbance. Walking in the dark is more difficult than in the light. They complain of staggering. Walking in the day time is quite good and without staggering. They complain of an inability to see clearly when walking or when riding in a bouncing car. Apparently it is a difficulty in focusing on objects when one is in motion. Probably this is due to the fact that they use the sense of vision to replace the vestibular end organs in maintaining their balance. This disturbance after both nerves are cut is, however, comparatively a small price to pay for the loss of those terrifying attacks.

The other patients with bilateral division of the nerve have had well defined Ménière's disease. The side of the greater deafness is chosen for division of the nerve and when this has been unsuccessful the other side has been operated upon at a later date.

To recapitulate, therefore: Ménière's disease is very common; it is easily recognized by recurring attacks of dizziness in which objects whirl (not dizziness in which the patient says "I feel woozy in the head and things turn dark in front of me," that is dizziness of vascular origin); subtotal deafness in one ear; tinnitus in this ear and nausea and vomiting. Such symptoms and signs are due to Ménière's disease and nothing else.

Finally, Ménière's disease is curable by dividing either the whole eighth nerve or (more satisfactorily) only the vestibular branch.

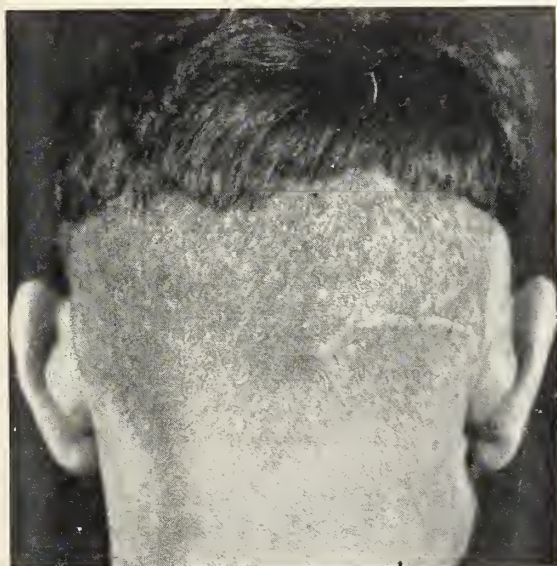


Fig. 3. Photograph showing scar resulting from operation for Ménière's disease.

## ABSTRACT

### FRACTURES OF ARM JUST ABOVE ELBOW ARE MOST DIFFICULT TO TREAT

The most difficult fractures to treat are those of the arm, just above the elbow, George J. Garceau, M.D., Indianapolis, points out in *The Journal of the American Medical Association* for Feb. 18.

The physician should consult with an orthopedic or bone surgeon in difficult cases of such fractures, Dr. Garceau says, basing his paper on an analysis of 133 fractures of this type. These fractures occur most frequently in children. Immediate reduction (alignment) of the fracture promises good results. Delay makes reduction more difficult because the soft tissues become hard and the muscles and tendons contract. With delay it may become necessary to open the elbow and reduce the fracture. This slows up the recovery.

When only one of the eminences is loose from the rest of the bone it is usually necessary to reduce it by open operation.

## NEWER CONCEPTS IN THE INTERPRETATION OF ANEMIAS\*

LEON L. BLUM, M.D.

TERRE HAUTE

The last decade brought an enormous progress into the understanding of anemias. The advent of liver therapy (Minot and Murphy, 1926) has been followed by so many important investigations into the nature of anemias that our whole conception and approach has undergone fundamental changes. Many misconceptions in the past were due to the fact that changes in the peripheral blood were considered without adequate knowledge of the changed activity of the blood forming organs. Today we are no longer satisfied with the mere detection of the status of the peripheral blood. We seek in it some indicators of the bone marrow activity and the routine requests for "white, red count, hemoglobin and differential" is no longer adequate in many cases. No longer is the direct exploration of the bone marrow a matter of only academic interest. The introduction of bone marrow biopsy as a routine clinical procedure has thrown much light on many obscure cases of anemia and opened a way to a better understanding of many forms of blood dyscrasias. Many of the so-called "primary" anemias were found to be specific deficiency states. As the result, the division of the anemias into the primary and secondary has been discarded by all investigators. It ought to be completely discarded by all practitioners as it does not offer any guide to treatment. For proper understanding and successful treatment of anemias, physiologic, dynamic approach and knowledge of the factors influencing the erythropoiesis are essential.

The red blood cells in the adult which are formed in the bone marrow, mainly in the ribs, skull and vertebrae, undergo in the bone marrow a complicated process, known as maturation cycle. In the course of this process the cells lose the nuclei and decrease in size. The mature erythrocytes enter the circulation, lead their normal life of about 30 days and are then taken out by reticulo-endothelial cells, mainly those of the spleen. The hemoglobin molecule is broken down, iron is released and returns to the bone marrow to be used again. For production of the red blood cells, in addition to unspecific substances necessary for all cell life, 2 specific elements are required:

1. Iron.

2. Anti-anemic (erythrocyte maturing) factor, discovered in the liver extract and desiccated stomach. Iron is needed for production of hemoglobin, the anti-anemic factor for the normal maturation of the red blood cell. Deficiency of either of these specific substances leads to a specific form of anemia.

### ROLE OF THE DIET AND GASTRO-INTESTINAL TRACT

A great deal of progress has been made in recent years on the relationship of the diet and gastro-intestinal tract to the blood formation. Inadequate diet and gastro-intestinal disorders are of dominating importance in the production of the majority of anemias.

An adequate daily intake of iron is indispensable. The exact iron requirement for man has not been definitely established. But it appears that an intake of at least 7 mg. per day is necessary. Iron is absorbed chiefly in the duodenum and upper small intestines and is carried to various organs, mainly liver and spleen, where it is stored. In the presence of iron deficiency, the red blood cells become less loaded with hemoglobin (hypochromic) and are smaller in size (microcytic).

Much has been written recently about the role of copper, but it has not been proven that copper is necessary for hemoglobin production in man.

An adequate daily intake of protein is also essential for normal hematopoiesis. In the effect on blood formation, different kinds of protein considerably differ from each other and Whipple has differentiated between "good" protein, such as that of meat, fish, eggs and liver, and the "poor" protein of milk, cheese, vegetables. The protein of the food is in some way connected with the "extrinsic" factor of Castle, but it could not be identified so far with any single protein or vitamin B complex. The dietary deficiency of this extrinsic factor may lead to an anemia characterized by the larger size of the red blood cells (macrocytosis).

Some recent experimental work suggests that defective diet may also make the red blood cells more susceptible to the action of certain hemolytic agents.

That deficiency of vitamins or thyroid secretion may be the cause of anemia can only be mentioned in this connection.

Only in recent years the attention has been justly centered on the etiologic relation of gastric secretion to anemia. A lot of work has been done along these lines and the results are of fundamental importance. The following facts are definitely established: The anti-anemic factor, also called hematopoietic, erythrocyte maturing (EMF), "liver extract" factor is formed in the stomach by interaction of the two following substances: (Castle)

1. Intrinsic gastric factor.
2. Extrinsic dietary factor.

The exact nature of these factors is still unknown. But we know that the intrinsic factor can be separated from hydrochloric acid and all enzymes of the gastric juice. The extrinsic factor, as already stated, is in some way related to the protein of the food and vitamin B complex. The

\* Presented before the Section on Medicine of the Indiana State Medical Association at Indianapolis, October 5, 1938.



erythrocyte maturing factor, formed by this interaction in the stomach, is absorbed and stored mainly in the liver and partly in other organs as kidneys, brain, placenta. It governs the normal erythropoiesis. The deficiency of this factor results in anemia of macrocytic type. Pernicious anemia is an example of liver extract deficiency due to constitutional inability of the stomach to produce the intrinsic factor.

Proper gastric secretion is of utmost importance not only for supply of the erythrocyte maturing factor, but also for the normal utilization of iron. The extraction of iron from the food may be defective in a person with achlorhydria. Here lies one of the important factors in the production of iron deficiency (hypochromic) anemia without a chronic blood loss.

#### DIAGNOSTIC PROCEDURES AND PRINCIPLES OF TREATMENT

In recent times there is some tendency to treat nearly every kind of anemia with a mixture of all possible ingredients: iron, liver extract, desiccated stomach, vitamin B complex. While I do not doubt the value of such commercial preparations in certain selected cases of anemia, the indiscriminate use of these "shotgun" preparations cannot be too strongly condemned. Their use before a proper diagnosis obscures the etiologic factors and does not permit subsequently an exact hematologic interpretation. It is well to keep in mind that the administration of iron in hypochromic anemias and liver extract in macrocytic anemias supplies a specific deficiency and does not just stimulate the bone marrow in some unspecific way, as it has been thought in the past. Therefore, the recognition of the specific deficiency state with the adequate classification of the anemia is imperative *before* undertaking treatment.

A careful physical examination along with a detailed history, particularly regarding the dietary habits and existence of chronic blood loss, will often yield valuable information regarding a possible deficiency state (brittle fingernails, early graying of hair, glossitis, etc.). The most important information will be obtained from a careful examination of the blood. Much progress has been made in this direction. Many unsatisfactory classifications of anemias have been replaced by the one based on size and the hemoglobin contents of the red blood cell. According to the size of the erythrocytes, the anemia may be macrocytic, normocytic or microcytic. According to the hemoglobin contents it may be hyperchromic, normochromic or hypochromic. For practical purposes the recognition of four main types as suggested by Wintrobe appears to be adequate: (1) Macrocytic anemia, (2) Normocytic anemia, (3) Microcytic anemia, (4) Hypochromic anemia. The microcytic and hypochromic anemias are often combined. A great deal of evidence suggests that these types of anemia develop as a result of a fundamentally different disorder of hematopoiesis. Thus the recognition of a particular morphologic type of anemia is of much practical importance as

it gives at once a clue as to the cause of anemia and indicates the type of therapy likely to be effective.

The *macrocytic* anemias of which the pernicious anemia is the best example are generally due to the deficiency of the erythrocyte maturing factor and in most cases respond well to administration of liver extract or its substitute.

The *normocytic* anemias occur as the result of sudden loss or acute destruction of blood (hemolytic anemias) or as the result of a severe injury to the bone marrow (aplastic and myelophthisic anemias). For many of these normocytic anemias there exists, unfortunately, no adequate treatment.

The simple *microcytic* anemias are usually found in many infections, intoxications, and chronic systemic diseases. The treatment should be primarily directed to the cause.

The *hypochromic* or *hypochromic-microcytic* anemias are usually due to deficiency of iron through chronic blood loss, inadequate diet, or gastro-intestinal disturbances. These anemias respond well to iron in large doses.

These few remarks must suffice to illustrate the value of morphologic classification of anemias. But it must be emphasized that most exact and painstaking laboratory examinations are necessary if the results are to be relied upon and not be misleading or confusing. This holds true both for the microscopic as well as macroscopic examination of the blood. The latter includes determination of the volume of packed cells by hematocrit method, fragility of erythrocytes, level of bile pigments, etc. The determination of the level of reticulocytes is a valuable index of bone marrow activity and a check on the efficiency of liver preparations.

Of great importance is the accurate hemoglobin determination by means of a reliable instrument. The familiar Tallquist scale should be discarded. Damashek reported a case of a physician who was treated for hypochromic anemia with large doses of iron on account of Tallquist readings between 60-70%. An accurate determination revealed that he was suffering from polycythemia with hemoglobin of 110-120% and 7,000,000 red blood count! The custom of reporting hemoglobin in percentages of an arbitrary normal is inaccurate, misleading and should be discouraged. A check of the most commonly employed hemoglobinometers reveals that their standardization for 100% ranges from 13.7 to 17.3 gm.! The hemoglobin findings should be reported in gm. per 100 cc. of blood. This would also enable an intelligent comparison of the blood examinations carried out in different institutions.

The extension of our hematologic knowledge and the general acceptance of the classification of anemias based on size and hemoglobin contents of the red blood cell introduced some new hematologic standards and indices of practical importance with which the practitioner ought to become familiar.

The average value for hemoglobin in adults of both sexes is 14 to 16 gm. per 100 cc. of blood.

The Mean Corpuscular Volume (M.C.V.) is

normally from 80 to 94 cubic micra. It is increased in macrocytic anemias and may amount up to 160 cubic micra.

The Mean Corpuscular Hemoglobin (M.C.H.) is normally from 27 to 32 micro-micrograms. (1 micro-microgram = a millionth of a one-millionth part of a gram.)

An accurate determination of hemoglobin, volume of packed red blood cells and an exact red cell count give the basis for the calculation of 3 hematologic indices which are of importance in the differential diagnosis of anemia: (1) Color Index; (2) Volume Index; (3) Saturation Index.

The normal average for all these indices is 1.0 with a normal range from 0.85 to 1.15.

A considerable convenience for the practitioner in carrying out hematologic examinations is the use of oxalated venous blood for this purpose. It is my impression that this possibility is not well known among the practitioners and yet it offers many advantages. Red, white cell count and hemoglobin determination can be carried out with sufficient accuracy within 24 hours after collection.

Other specific laboratory tests may be needed to establish the type of anemia (gastric analysis, basal metabolism test, etc.). As already pointed out, the

bone marrow biopsy by sternal puncture has become a routine procedure in many institutions and is the method of choice in all obscure cases.

A careful, competent blood examination is the basis for proper interpretation and treatment of anemias. But the correlation of the laboratory report with the clinical findings should never be omitted. The laboratory classification based on the morphology of the cells has its limitations and must be supplemented by a classification largely based on etiology. While macrocytosis generally indicates liver extract deficiency, it may be occasionally due to an entirely different cause. An overactive bone marrow, for instance, delivers into the circulation young, not completely mature cells, reticulocytes, which are of larger size than the mature erythrocytes. A good example of this kind of macrocytosis is seen in the so-called acute hemolytic anemia, in which a sudden destruction of large numbers of erythrocytes makes the bone marrow hyperactive. But this macrocytosis is not due to a liver extract deficiency.

The proper correlation of an accurate laboratory report with the clinical picture and its proper interpretation will no doubt result in a better understanding, more adequate evaluation and more efficient treatment of anemic conditions.

## FEVER OF UNKNOWN ORIGIN

### REPORT OF A CASE

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The diagnosis of obscure fever is one of the most interesting and important problems brought to the physician for solution. At some time every medical man, whether he be surgeon or internist, is confronted by a patient with fever that does not easily fit into the category of diseases known to cause elevations of temperature. The infectious diseases and many of the other pathological conditions causing fever ordinarily present identifying symptoms and physical findings which, as a rule, do not make their diagnosis difficult. It is not with these diseases, or rather with their usual manifestations that we are concerned ourselves, but rather with some of their atypical forms and with some of the diseases known to cause high fever but which are not commonly seen. Furthermore we will not discuss those patients occasionally seen with fevers of short duration on whom no very satisfactory diagnosis is ever made, nor those who have not been completely and exhaustively studied in an effort to determine the etiological agent.

Most patients having long continued fevers sooner or later present symptoms and physical signs whereby a correct or at least a presumptive diagnosis can be made. It is not strictly correct, therefore, to refer to such fevers as of unknown origin, but at least we can truthfully say that

many of them were so for an inconveniently long period of time.

Among others, there have been three excellent articles on this subject which the interested reader is urged to study.<sup>1, 2, 3</sup> Hamman and Wainwright have contributed an excellent paper with rather extensive references and several detailed case reports. For discussion they divided these fevers into long continued low-grade, and high-grade types. Our discussion will be limited to the latter type, and to only those which appear to have been the likely cause in the case reported.

### REPORT OF A CASE

Mrs. L. L., a white American housewife, aged 25, was first seen in consultation with Dr. Joe Welborn on July 7, 1936. She complained of having had an

<sup>1</sup> Hamman, Louis; and Wainwright, Charles W.: The Diagnosis of Obscure Fever, I. The Diagnosis of Unexplained, Long-continued, Low-Grade Fever. *Bull. Johns Hopkins Hospital*, 58: 109 (Feb.) 1936. II, The Diagnosis of Unexplained High Fever. *Ibid*, 58: 307 (Apr.) 1936.

<sup>2</sup> Alt, H. L., and Barker, M. H.: Fever of Unknown Origin; *J.A.M.A.*, 94: 1457, 1930.

<sup>3</sup> Kintner, A. R., and Rowntree, L. G.: Long Continued, Low-Grade, Idiopathic Fever: Analysis of 100 cases. *J.A.M.A.*, 102: 889, 1934.



intermittent fever since June 2, 1936. She was on a picnic on May 30, 1936, but was not bitten by any mosquitoes or other insects. She did not feel well after this trip, complaining of a slight sore throat and a feeling of lassitude. A few days later she developed some pain in the right ankle, and fever. There was no swelling of the ankle nor was there pain in any of the other joints. The fever tended to recur in paroxysms on the third day, but at other times it seemed to be continuous. She had noted that when the fever reached its height her body became covered with a rash. This rash was said to resemble multiple mosquito bites and was never present on the face. She had always been in good health, and had never had rheumatic fever or any other serious illness. She had had some type of pelvic operation with an appendectomy some years prior to the present illness. She had two normal pregnancies since the operation and there was no history of a miscarriage. On physical examination she was found to be well developed and well nourished but somewhat pale in appearance. The temperature was 103 degrees F., pulse rate 110, and respirations 20. The pupils were round, active, and equal to light and accommodation. There was a small petechial hemorrhage in the conjunctiva of the right lower lid. The nerve head in the left fundus appeared somewhat indistinct. The tonsils were small and embedded and the pharynx did not appear inflamed. The teeth appeared to be in fairly good condition. The neck was freely movable in all directions, the thyroid was not enlarged and there was no tracheal tug. The chest was entirely clear, the heart not enlarged to percussion, and the cardiac rhythm was regular. There was a very faint systolic murmur at the apex of the heart. There was a lower midline abdominal scar, but no tenderness or palpable masses. The spleen was not enlarged. The superficial and tendon reflexes appeared normal. The skin was moist and hot, and scattered over the entire body (exclusive of the face) was a maculo-papular eruption. These lesions varied in size from a pin point to about .5 cm., were round in shape, and did not fade on pressure. The blood pressure was 115 systolic and 60 diastolic. The urine was negative. A Widal and agglutination for undulant fever had been done and reported negative. Repeated white cell counts had all been below 12,000 and many studies of the blood had failed to show any malarial parasites. A blood culture, taken with the patient at home, had been reported contaminated. She had been receiving salicylates and large doses of quinine without apparent benefit.

The patient's subsequent course was a long and trying one for her as well as the members of her family, her physicians and their consultants. There are many other interesting points in her illness. Accurate records of her temperature revealed that she was having fever which occurred fairly regularly every fourth day. During the afebrile periods she felt well and was able to be up and about the house. The rash always recurred with the fever and dis-

appeared when it did. During the paroxysms of fever she complained of headache, and pains in the extremities and joints. On July 13, 1936, the blood Wassermann was negative. The red cell count was 3,600,000, white cells 6,500 with 75 per cent neutrophils, 24 per cent lymphocytes and 1 per cent eosinophiles. The catheterized urine at this time was negative aside from a one plus albumin. Another agglutination for undulant fever was reported negative by the Indiana State Board of Health laboratories. A Widal at this time was positive in a 1:20 dilution for paratyphoid. Roentgenograms of the chest were likewise reported negative. The patient continued to have paroxysms of fever; we continued to examine and re-examine her and to repeat all laboratory tests. Repeated smears for malaria were negative.

By August 5, 1936, a total of four blood cultures had been taken. The first was contaminated. The second showed a small gram negative rod, and a few small cocci thought to be short chain streptococci or staphylococci. The third showed a small gram negative rod with spore formation and the fourth a small gram negative rod. We thought that perhaps our culture medium was contaminated, but further examination failed to substantiate this suspicion. What was this gram negative, apparently spore-forming bacillus and could it be responsible for the patient's illness? There were only two or three colonies to each blood agar plate, and they did not cause hemolysis. Each colony was about the size of a pin head and was green in color. A skin test for undulant fever on July 31, 1936, was negative. Smears from the cervix did not show any gonococci and the pelvic examination remained negative.

On August 8 she had two teeth removed under local anesthesia. No reaction was noted afterwards. About August 10 she began to complain of a severe basal headache and, on August 13, stiffness of the neck was noted with a positive Kernig sign. A spinal puncture revealed the fluid to be under increased pressure, and slightly cloudy. There was no evidence of subarachnoid block. The globulin of the fluid was increased, the cell count 1,000, and a trace of sugar was present. The differential count was as follows: lymphocytes 75 and polys 25 per cent. On direct smear no organisms could be found. Cultures on agar and beef broth failed to show any growth after several days. On standing, the fluid formed a distinct pellicle but no tubercle bacilli could be found. A guinea pig inoculation was done and at the end of six weeks the pig seemed none the worse for his experience. The patient continued to run fever, but since the onset of the meningeal symptoms it tended to recur daily or every other day. All of the laboratory tests were repeated again, but all with negative results. On August 24th a blood culture again showed a small, gram negative spore-forming bacillus. The patient's general condition at this time was fairly good aside from a moderate loss of weight and a secondary anemia. On August 27th

she was given 1,000 cc. of whole blood by the direct method. On August 28th the spinal fluid was still cloudy, under increased pressure, and contained 2,000 cells per cc. Her temperature became normal at this time and has remained so ever since. She gradually regained her strength and was discharged with no apparent residual symptoms. The total duration of her illness was approximately three months. She was last seen April 24, 1938, and appeared to be in excellent health.

No treatment other than symptomatic measures were used. Sponge baths were frequently used during the febrile attacks at which time the temperature usually rose to 102-104 degrees F. During the early part of the illness she was given salicylates, quinine, atabrine, neoarsphenamine and intravenous metaphen. The meningitis was treated by repeated spinal punctures with removal of 10-15 cc. of fluid.

The patient's temperature and pulse rate for the week of July 7-13 are shown in the chart. During the entire illness the temperature chart was very similar to this one week.

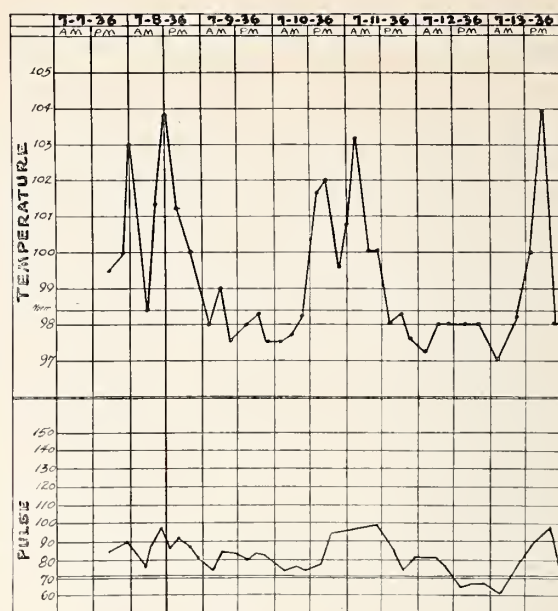
The National Institute of Health at Washington, D.C., was asked to study the organism isolated from the blood stream and reported that it "seems to more closely resemble *Bacillus Pseudo-tetanus* than any other bacterium that we have found described in the literature."

#### DISCUSSION

There are many interesting questions concerning the diagnosis raised by this case. Could the gram negative, spore-forming bacillus found in the blood cultures have caused her illness, or were these cultures repeatedly contaminated? It seems unlikely that we could have found the same organism so consistently if it had been a contaminant. On the other hand, a search of the literature has failed to reveal any reports dealing with an organism of a similar nature causing such an illness. One can readily see that since the organism could not be completely classified, any search for similar reports is made extremely difficult.

It does not seem likely that her illness was caused by any of the other diseases known to cause long continued high fever. Had this been miliary tuberculosis or tuberculous meningitis it seems most probable that we would have found the tubercle bacillus, and most improbable that she should have recovered. The same statements would also seem to apply to sub-acute bacterial endocarditis, diseases of the blood forming organs and malignant tumors.

Undulant fever is well known to be a cause of long continued fever and has been known to cause meningitis.<sup>4</sup> However, the repeated negative agglutination tests for *Brucella* would seem to rule out this disease as a possible etiological agent.



At one time we thought she might have a rare type of fever described by Place and Sutton<sup>5</sup> and known as erythema arthriticum epidemicum or Haverhill fever. This disease was observed to occur in an epidemic form in Haverhill, Massachusetts. One of the cardinal symptoms, however, appeared to be an arthritis, frequently with effusion into the joints. Our patient never had any inflammation of the joints although she complained of some pain in them as well as in the extremities during the paroxysms of fever.

Another diagnosis which we entertained very strongly was that of prolonged meningococcemia.<sup>6</sup> This disease is characterized by a paroxysmal fever similar to that seen in malaria, chills, a skin rash, and pains in the muscles and joints. It is known to cause fever for weeks and months, and at an earlier or later interval may or may not involve the meninges. The course of our patient's illness more closely resembled the descriptions of this condition in the literature than any other. However, the meningococcus can usually be demonstrated in the blood stream although special cultural methods may be necessary to do so. We did not use any special methods in an effort to isolate this organism from the blood. From the reported cases it would appear comparatively easy to demonstrate the meningococcus once a meningitis develops. This we were unable to do, even though repeated attempts were made to demonstrate the meningococcus in the spinal fluid.

It would appear, therefore, that no very satisfactory cause can be assigned for this patient's prolonged fever and illness.

<sup>5</sup> Place, Edwin H., and Sutton, Lee E.: Erythema Arthriticum Epidemicum (Haverhill Fever) *Arch. Int. Med.*, 54:659 (Nov.) 1934.

<sup>6</sup> Carbonell, Arturo, and Campbell, Eugene P.: Prolonged Meningo-coccemia, *Arch. Int. Med.*, 61:646 (Apr.) 1938.

<sup>4</sup> Poston, Mary A., and Smith, David T.: Successful Treatment of *Brucella* Meningitis with Immune Human Serum: Isolation of the Organism by a Modified Cultural Method. *New England J. Med.*, 215:369 (Aug.) 1936.



## A MEDICAL PLAN FOR ALL THE PEOPLE\*

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The world we live in has been engaged these recent years in an ecstasy of vast and lofty planning. Certain changes or trends under way in the last few years and accentuated in the present turmoil between capital, labor and the Government will have a definite bearing upon the medical profession and medical practice in this country. If the medical profession is not ever alert it will be given as a political peace offering by capital and the Government to labor, and the history of Germany under Bismarck and the history of England under Lloyd George will repeat itself in America. The history of medicine in these two countries demonstrates in no uncertain terms the defects and abuses of political machination.

The future and safety of medicine lies in a profession that will be tightly defined, highly disciplined, restricted in personnel, better protected and more efficient. The control must not be governmental but must be professional and internal.

For the Social Security program of the present national administration, including its larger aspects of compulsory health insurance of American wage workers and low salaried wage earners, European precedents are relied upon for guidance. Once such a system becomes established, it is next to impossible to repeal it or bring about profound modifications. The medical profession would be divided into two classes, those practicing state insurance and those who continue under a system of free competition in private practice. There would be a poor man's doctor and a rich man's doctor, a comparison which will at once be odious to both the American public and the American physician. It is fundamentally opposed to our American conceptions of life and democracy. It is definitely European in its concepts.

It was a little more than five years ago that the Missouri State Medical Association began to study the socio-health movement in this country and the accomplishments of such movements in European countries. We learned that sociologists believed that health is essentially a social problem, emphasizing that it is a fact that to care for the sick and to promote health are broadly considered social rather than medical problems in the narrow sense of the word. They believe, "While it is true that selected phases of health work must, by their very nature, be carried on by such technically trained persons as physicians, surgeons, nurses and the like, it is equally true that the development of their services, their mode and point of attack, the direction and emphasis of their work, are

essentially problems of social policy, social understanding and social organization." There seems to be a general tendency to put the cart before the horse with the sociologists in the driver's seat. After a complete study of the social planning in Europe as exemplified in compulsory health insurance, organized medicine has come to the conclusion that it must lead in social understanding and social organization in medical matters.

The present methods of providing medical services; of paying for them; of utilizing social service personnel; of financing, constructing and operating hospitals; of carrying out public health activities; of educating practitioners; in short, the whole group of arrangements and devices through which the science of medical knowledge is translated into services is a result of generations of growth. No one person and no one group of persons planned the present conditions nor can be held responsible for them. They are not the creation of medical men alone but of physicians, hospital trustees and superintendents, health officers, educators, philanthropists, industrial employees and employers and government officials. All have contributed their share in the creation of the chaotic picture that presents itself to us today. Our obligations are mutual and the solution of our problems must be upon a mutual basis.

No development in the field of medical economics, with the exception perhaps of sickness insurance and state medicine, has aroused more interest and discussion than has group hospitalization or prepayment plans for hospital care.

During the recent economic depression, hospital income from endowment and voluntary contributions was decreased by about two-thirds, the charity load was increased almost fourfold and large obligations growing out of capital investment or fixed costs were not met.

Under such existing conditions it was only natural that superintendents, lay boards and hospitals, and in some instances the medical profession, should seek some method whereby the major item of illness costs might be more conveniently met by the great mass of American people. The method chosen by a great many communities was the prepayment plan known as group hospitalization. Much credit is due the little group of pioneers at Baylor University in Texas who had the courage to bring forth in the face of many obstacles an untried plan; other cities and communities capitalized on the experience of the early years of operation and have added to the stability, efficiency and increased confidence in the plans as they are presented to the people today. There seems to be little doubt that under proper admin-

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istration and organized on certain principles, group hospitalization will meet with the approval of all concerned. For many years there have been serious discussions among physicians and hospital administrators concerning the most equitable arrangement for anesthesia; clinical pathology; radiology and other special medical services in hospitals. If group hospitalization plans show a distinct tendency to place hospitals in the field of medical practice they cannot expect the support of organized medicine. Plans confining their benefits strictly to hospital facilities or to those services acceptable to the local medical society would avoid any undesirable disturbance in the field of medical practice and would not impair the value of the plan as a method of assisting persons with limited incomes to receive good hospital care.

In Atlantic City, speaking before the convention of the American Hospital Association on September 14, 1937, I said:

"The medical profession has little trepidation concerning hospital service plans which do not violate the ethics and principles of American medicine. Instead, they welcome this adjunct of service to their patients. Hospital service plans reduce for the patient any financial worry which so frequently retards recovery. The doctor can more readily refer the patient to the hospital for, after all, it is in our great scientific hospitals that the best care can be given the afflicted. The doctor can with more facility see his patients and in this way reduce the costs of medical attention. Nor is it too crass to take cognizance of the fact that the patient without a hospital bill to pay can more readily meet the expense of medical fees. This might even be carried further; it is an established fact that too many patients today are turning to self administration of questionable nostrums; too many are not calling their family practitioner for competent medical advice and the reason—because they still owe for the last baby or last operation and are ashamed to admit to the doctor that they have been able to budget for many things but not for their health. Cooperation and fair play is expected of the physician. Because a patient has availed himself of group hospitalization protection, it should not be a signal to charge fees which are not commensurate with the ability to pay. Group hospitalization is not the panacea for all the patients' ills and shortcomings, but in time its educational and interpretive service may prove to be of even greater help to humanity than its actual care of members.

"Group hospitalization has had an auspicious start and the medical profession, together with the community in general, expects and hopes to receive much good in the future, but unfortunately, there are and will be limitations. There will still have to be a medical economics plan which will increase the efficiency of the delivery of medical, dental and hospital care for all people, regardless of their income status.

"It may be some time before group hospital service plans can safely work out a method to enroll practically all those desiring such protection. It is obvious that administrative costs and adverse selection are major reasons which preclude the extension of this service to individuals, and not just through groups at their place of employment. The medical societies throughout our land have been experimenting for years to develop a thoroughly ethical and sound method whereby those in the limited and low income bracket might be better served in matters relating to health.

"Hospital service plans can and might be an important factor in aiding the development of plans to provide medical and dental care which will not violate nor disturb the relationship between doctor and patient. It is an admitted fact that hospital service plans, as a rule, do not reach those of very low income, and certainly not the indigent.

"Group hospitalization might eventually be part of a well coordinated program which would arrange for the payment of medical, dental and hospital bills on a postpayment basis for those lacking membership in the service plan. In communities where there are a number of hospitals supported by a local community chest, it will likewise prove practical to coordinate their admitting service. A number of large cities have already placed this plan in effect and with very satisfactory results. For this to be brought about it will call for real community cooperation; the natural selfishness of individual institutions must be subjugated to the best interest of the community at large. The formation of community chests was a forward step in conserving the resources for community help which were contributed by thousands of wage earners to aid those less fortunate than themselves. Therefore, a coordination of existing resources is far more desirable and unquestionably more practical than the establishment of any new and unworked scheme for the provision of better medical services and better hospital care to our people.

"It can be stated briefly that organized medicine can cooperate in the establishment of group hospital service plans provided these elements are made a part of such plans.

"1. It must be nonprofit and provide for voluntary enrollment.

"2. Exclude all medical services.

"3. Safeguard the right of free choice of doctor and hospital.

"4. Fit the needs of the community as recommended by the local medical society and the hospitals.

"5. Conform to the tenets of the American Medical Association and American Hospital Association as they relate to any prepayment plan.

"6. Provide adequate representation of the medical profession and the hospitals on the governing board.

"7. Embrace all eligible hospitals in the territory served.



"8. Adhere to an equitable criteria of the Hospital Service Section of the American Medical Association.

"9. Periodically publish audited financial reports.

"10. Provide sound supervision through state regulatory laws; bonded employees and preclude commission or bonus payments to anyone.

"11. Hospital service plans should be an integral part of a community or state medical economics program and, as such, they can best serve the people. The hospitals will then remain traditionally institutions of charity and humanitarianism."

The one outstanding problem before the medical profession today from the standpoint of the curative treatment of disease is the development of an adequate medical service for all persons, and at a cost which can be met by them in their respective stations in life. It is in answer to this problem that the Health Security Administration of the State of Missouri is being planned and developed.

Following the survey that is being made of the medical needs of the state, the state is to be divided into economic units. Each unit will support in a coordinated program:

1. A Group Hospitalization Plan.
2. A Medical-Dental Service Bureau.
3. A Central Registration Bureau.

Representatives from the boards of management of each of these bureaus will make up the Health Security Administration of the economic unit. A representative from each Health Security Administration will sit on a state board to be known as the Health Security Administration of the State of Missouri.

It is planned that this Health Security Administration of the State of Missouri will be in control of all plans and monies established by federal grants-in-aid. It will have the right to assist local economic units in the building of needed hospitals and clinics from state and federal funds.

The respective local boards are made up of medical men, dentists, hospital representatives and the public. If we must have a National Health Program such an administration could handle it most safely and most sanely and would meet all the requirements of the Technical Committee in its suggestions and plans for a unified system of State Health.

We have divided the people into four classes. The upper 25 per cent of the people can pay for all medical, dental and hospital care at all times. The second 25 per cent can with some assistance pay reasonable fees for health care. For this group we have arranged the Medical-Dental Service Bureau for the postpayment of their medical, dental and hospital bills. These bills are to be liquidated in a year's time. For this group we also have inaugurated Group Hospitalization which at a cost of 75 cents a month per individual, \$1.25 a month for husband and wife, and a maximum of \$1.50 a month for any sized family, pays for thirty days a year for each of them in any of our hos-

pitals. If they stay longer than thirty days, one third of the bill for six months is paid. The average stay in the last two years has been 9.7 days.

For the third group of 25 per cent of our population, the two bureaus are of great service. Group Hospitalization will take care of their hospital liability, and their medical and dental bills must be scaled down to meet their ability to pay. For the lower strata of this group, which of course varies greatly in number in direct ratio to our depressions and recessions, the third bureau, the Central Registration Bureau is intended. The patient will pay what little he can for his hospitalization, if he is not a member of Group Hospitalization, and the balance is to be paid out of United Charity funds at an agreed per diem cost. The medical care after proper investigation of these patients will be given gratis by the medical profession. It is hoped after the indigent load of the community has been definitely established by the Central Registration Bureau, to work out a prepayment plan for medical and dental care for this whole group.

The last group of 25 per cent of our population will always be the responsibility of the community and their care should be paid for on a per diem basis by the United Charities as they are vouched for by the Central Registration Bureau. If the funds of the United Charities are not sufficient to liquidate this liability, the city, state and national tax funds must subsidize the program. This will fit in well with the National Health Program.

If the medical and dental burden for the care of this group becomes too great, then plans like the Los Angeles County Plan and the Oakland (Michigan) Plan will be instituted. These plans pay for the care, medical, dental, etc., out of tax funds. Again we can use federal grants-in-aid.

We feel that this is a state system such as is recommended by the National Health Conference and meets the suggestion that "The role of the federal government should be principally that of giving financial and technical aid to the states in their development of sound programs through procedures largely of their own choice."

It is a state system establishing and meeting all the needs of all counties in the state; it is voluntary in every respect and with no political control.

The next step in the completion of this program is the development of a prepayment medical plan. The State Committee on Medical Economics met in Jefferson City on December 11 and agreed upon the following pertinent data:

1. The plan is to be on a service basis, nonprofit, and is to be known as "Health Security, Inc." The main objective should be complete coverage with as little exception and deducibility as possible. The plan here presented will become an integral part of the Missouri Plan and will be based upon the economic unit of service proposed by that plan. It seeks to adopt the principles of all budgeting

devices, viz., to spread the cost of unpredictable hazards over a large group at a predictable rate suited to the incomes of the participants of the plan. It seeks to offer a method of accomplishing the purpose as a civic enterprise in similar fashion to Group Hospital Service, Inc., and to utilize the medical resources of the community as they exist or as they may become, in the manner to which the community is accustomed.

2. The control should be vested entirely in the State Medical Association through a board of trustees representing the membership on a numerical basis. An advisory committee made up of professional and lay individuals shall be formed in each economic unit.

3. Taking into consideration the economic phases existing in the state, the Committee felt that the population can be divided into three main groups:

Group A. People living in metropolitan areas like St. Louis and Kansas City. Membership is to be available only to families with a maximum income per annum of:

\$1800 gross income for the entire family, premium rate \$3 per month.

\$1200 gross income for man and wife, premium rate \$2.50 per month.

\$1200 gross income for individual, premium rate \$2 per month.

(Dependents are unmarried children under 18 years of age living at home.)

Group B. People living in urban areas of from 5,000 to 100,000 with maximum income per annum of:

\$1200 gross income for entire family, premium rate \$2 per month.

\$1200 gross income for man and wife, premium rate \$2 per month.

\$1000 gross income for individual, premium rate \$1.50 per month.

(Dependents as in A.)

Group C. People living in rural areas with maximum income per annum of:

\$800 gross income for family, premium rate \$1.50 per month.

\$800 gross income for man and wife, premium rate \$1.50 per month.

\$800 gross income for individual, premium rate \$1.50 per month.

(Dependents as in A.)

4. Consistent with "free choice of physician" all doctors licensed to practice medicine and acceptable to the committee on ethics and censors in each county medical society should be permitted to volunteer to serve the plan. Negro physicians must be members of the National Medical Association (no other control possible). Ethics committees and censors of each county medical society must consider punitive action in any cases of abuse, by physician or patient, and refer information for decision and disposal to the medical trustees. Since this type of prepayment medical service is to be placed upon a group basis in the main, the groups will be held responsible for

abuses by its individual members and in turn the group can make complaints to the medical Board of Trustees as to medical service rendered.

5. The plan should be made available according to basic enrollment procedure of Group Hospital Service but option should be given to take either or both of the plans.

6. Administrative Machinery. Economic acquisition can be made by utilizing field secretaries of Group Hospital Service. Before distribution and proration of funds, 20 per cent should be retained by Health Security, Inc., 10 per cent for reserve (for protection in epidemics, prolonged cases, maternity care, chronic cases), and 10 per cent for administration. A possible method of financing which has the added advantage of a check on abuse would be to withhold \$100 in service fees of each participating physician, this amount or remaining part thereof to be paid to the physician or his estate when his contract with the Association is ended for any reason.

7. Medical services are to be paid for out of available pooled funds on the "unit system." The unit system has been selected because no other method will insure against insolvency or bankruptcy and because it is evidence to the public of the good faith of the medical profession during the developmental period of this plan.

8. Beneficiary membership in the plan is to be open to all Missouri inhabitants falling within the restricted income groups as rapidly as arrangements can be made therefor.

9. The scope of medical service as contemplated is to include everything except industrial injuries (Workmen's Compensation cases, etc.), accidents covered by other types of insurance held by the insured in this plan or by a responsible agent, or illness arising from acute alcoholism and drug addiction. Monthly limits of service are to be placed upon the care of chronic illness developed after patient has been in the plan six months, as deemed advisable by the Board of Control.

10. Participation of physicians shall be upon a voluntary basis and upon the signing of an agreement with full acceptance of all medical responsibility. In no way can the county medical society be held responsible. It acts merely as the agent in similar fashion as in Group Hospital Service, Inc. The plan will not be started until at least 60 per cent or more of the eligible doctors of medicine have volunteered to serve.

Treatment of patients and nonacceptance of patients by doctors shall be on the basis of generally accepted precepts of the ethical practice of medicine.

11. Roentgen ray, anesthesia (major and minor), clinical pathology, physiotherapy and hydrotherapy for hospitalized patients will be paid for with definite restrictions on a cash indemnity basis as it may be developed through cooperation with the Board of Trustees of Group Hospital Service, Inc. Private patients will receive this care in the respective offices of member physicians, or as out-



patients of these physicians in hospitals, in accordance with the system of compensation and restrictions developed by the plan. Every individual enrolling in the plan shall be considered a private patient.

12. The general attitude of the profession must be cooperative and not competitive.

13. The public must be educated to understand that any plans developed by the medical profession are with the desire to furnish them the best of medical and hospital care. Any abuse on the part of the public will not only jeopardize these plans but also the American type of medicine which

statistics have proven to be the best in the world today.

In conclusion may I point out that the swift, quiet growth of prepayment plans, both medical and hospital, presages a truly American type of medical practice in the United States? The Missouri Plan for the medical care of all the people is based upon community needs, is to be developed and paid for by the community, aided, if need be, by local, county, state and federal funds. It protects the individual autonomy of our private institutions and the personal relationship between physician and patient.

## DIAGNOSIS AND MANAGEMENT OF CHOLECYSTITIS\*

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In the early days of biliary surgery, most patients came to the surgeon already labelled because they had either suffered from an attack of gallstones or were jaundiced. At the present time, however, owing to the newer methods of investigation, the main subjective symptom may be only that of dyspepsia. The value of diagnostic methods in chronic cholecystitis is emphasized by the frequency with which unsuspected gall bladder disease is found at operation for some other condition, or at autopsy. Dr. Edward Truesdell<sup>1</sup> of St. Lukes Hospital in New York, reviewing 350 laparotomies in women, found an incidence of gallstones of 9.8 per cent, and this finding in patients who had been previously studied and prepared for operation. Our own hospital records show that in approximately 10 per cent of the autopsies performed here, previously unsuspected gallstones were found<sup>2</sup>. In many of these cases there had been no symptoms to indicate a need for gall bladder studies. "Indigestion," as all practitioners know, is one of the commonest complaints which brings the patient to the doctor. At the Mayo Clinic<sup>3</sup>, almost 50 per cent of patients between the ages of thirty and sixty include "indigestion" among their complaints. This complaint should always receive serious consideration in patients beyond the age of forty, for approximately one-half the men forty years or older were found to have peptic ulcer, cholecystic dis-

ease, or carcinoma of the gastro-intestinal tract. In women past forty, two out of five were found to be suffering from organic disease of the gastro-intestinal type. At the Henry Ford Hospital in 1937, 1,915 patients were treated for complaints referable to the upper gastro-intestinal tract. Of these, 336 or 17.6 per cent were found to have gall bladder disease, the diagnosis being substantiated by definite laboratory and x-ray evidence.

The presence or absence of gall bladder disease should be accurately determined in every patient who complains of persistent indigestion, for clinical experience confirms that the main complaint is dyspepsia.

From the foregoing, however, it is obvious that clinical methods alone are unequal to the task of diagnosing chronic gall bladder disease. Rehfuß<sup>4</sup> states that gall bladder disease mimics gastric disease, not only reflexly, but is also one of the most common causes of pylorospasm. He further states that only by utilizing the technical methods which are at our disposal today are we able to make a distinction between gall bladder disease and gastric conditions.

We shall review briefly the procedures which have been found useful at the Henry Ford Hospital. These will be mentioned in the order of their value, as rated by our Gastro-Intestinal Division.

1. Cholecystograms. The oral administration of the dye has been very satisfactory. It is only seldom that a diseased gall bladder gives normal cholecystograms, and false positive findings are also infrequent. Occasionally, one does find a typical case of gall stone colic, and the cholecystograms show a normal shadow and normal function. In such a case, one must depend on the clinical evidence, and in certain instances, operate in the face of negative laboratory findings.

2. Biliary Drainage. In our Gastro-Intestinal

\* Great help was given in the preparation of this report by Doctors Fallis, Mateer, Baltz, Lam and our resident staff. A more complete review will soon be published.

Presented before the general meeting of the Indiana State Medical Association at the Indianapolis session, October 6, 1938.

<sup>1</sup> Truesdell, E. D.: Incidental gall stones in women. *Ann. Surg.* 98:362-368, Sept., 1933.

<sup>2</sup> McClure, R. D.: Gall bladder diseases, diagnosis and indications for operation. *J. Michigan M. Soc.* 30:356-360, May, 1931.

<sup>3</sup> Rivers, A. B.: Dangers of treating "indigestion" by advertised nostrums. *Proc. Staff Meet., Mayo Clin.* 13:87-88, Feb. 9, 1938.

<sup>4</sup> Rehfuß, M. E.: *Diagnosis and treatment of diseases of the stomach.* Phila., W. B. Saunders Co., 1927.

Division, it is felt that *earlier* changes may be detected by examination of the bile than by any other method. Investigation includes an energetic attempt to obtain B bile and a painstaking microscopic examination. Great importance is attached to the combined finding of orange calcium bilirubinate pigment and clumped cholesterol crystals, as indicating the likelihood of the presence of either gross calculi or gall sand. The absence of the dark B bile indicates either a thickened gall bladder with a loss of concentrating function, or else an obstruction to the cystic duct. Failure to obtain B bile after repeated stimulation of the duodenum is an unusually reliable item of diagnostic evidence, confirming the significance of the cholecystographic finding of non-visualization of the gall bladder shadow, in indicating either thickening of the gall bladder wall or else some type of cystic duct obstruction. To quote the late Dr. Carman, "No diagnosis can be too strongly fortified." We have learned, however, from eighteen years of experience with duodeno-biliary drainage, that satisfactory and reliable diagnostic findings are obtained only if one has a very experienced nursing staff to carry out the somewhat elaborate technique and also a microscopist well versed in bile cytology to correctly identify and interpret the findings.

3. Icterus Index. This is a convenient and simple quantitative measure of the bilirubinemia. When a laboratory value of between 7 and 15 is obtained, we have evidence of an early or sub-clinical jaundice. After the jaundice is perfectly evident clinically, a daily icterus index determination shows us whether the jaundice is increasing, intermittent, or decreasing. A fluctuating icterus index may indicate a stone in the common duct with a ball-valve action, or it may suggest a sloughing malignant obstruction at the ampulla, resulting from a primary carcinoma of the duodenum.

4. Leukocyte count. We consider this a valuable index to the degree of infection present in acute gall bladder conditions. Counts of over 20,000 should make one suspicious of an empyema of the gall bladder which may progress to gangrene and perforation.

5. Van den Bergh Test. The quantitative Van den Bergh is useful in jaundice cases as a counter check upon the icterus index in helping to make a differential diagnosis between jaundice due to obstruction and that of extra-hepatic origin, but only as it indicates the type of bilirubinemia curve.

6. Liver Function Test. The bromosulfalein Test has been criticized because of its lack of sensitivity. If there is dye retention at the end of thirty minutes, one can be quite certain that there is an appreciable degree of liver damage. We believe that the contraindications to its use in hepatitis have been over-emphasized. Repeatedly, we have seen the liver function test change from that indicating liver insufficiency to a normal value, by delaying the operation a week, and fortifying the

liver by administering generous amounts of glucose by mouth and vein.

7. Galactose Tolerance Test. This test for liver function has the great advantage of not possibly being toxic to the liver parenchyma; and, therefore, it may be used safely in the presence of suspected, advanced hepatitis. It is also helpful in the differential diagnosis of jaundiced patients.

8. The total blood cholesterol is also a practically helpful test, along with the others mentioned above, in evaluating liver function.

9. Blood diastase. This appears to be useful in recognizing acute pancreatitis only. Values above 20 units in a patient with acute abdominal symptoms suggest acute pancreatitis. It is not used routinely in gall bladder diagnosis.

10. Plain Gall Bladder Films. A plain x-ray for gall stones is of little value, since only the positive density of calcium gall stones are demonstrated by this method. This method is indicated in jaundice patients.

#### MANAGEMENT

When the diagnosis of cholecystic disease is established, the problem of management and advice to the patient presents itself. This is a real problem in those cases without symptoms, in which cholelithiasis is discovered accidentally. Such persons are not demanding relief of symptoms, but are interested in what the future holds for them. They are confronted with the following dangers which it may be best to explain to the intelligent patient.

1. Impaction of a stone in the cystic duct, with the development of acute hydrops or empyema of the gall bladder, which conditions sometimes necessitate an operation when conditions are not optimum. Empyema may progress to perforation into the general abdominal cavity, causing peritonitis, or the neighboring viscera may become involved in the process, so that subsequent operation is greatly complicated. Intestinal obstruction from a gall stone which has eroded through the gall bladder wall into the duodenum is a surgical curiosity, but has been reported a number of times.

2. Common duct obstruction or stones in the common duct without obstruction. This usually results in jaundice, and occasionally ascending cholangitis and focal areas of suppuration in the liver. Prolonged obstruction results in general liver damage of the cirrhotic type. Common duct surgery is more difficult than simple cholecystectomy, hospitalization is prolonged, and increased mortality and morbidity rates have been reported.

3. Danger of carcinoma. We have recently reviewed 36 cases of carcinoma of the gall bladder in our hospital, and stones were found in 22 of 25 cases in which the gall bladder was opened. In the light of our present knowledge, carcinoma of the gall bladder must be attacked in a prophylactic way, because the mortality after gall bladder carcinoma has developed is between 95 and 100 per



cent. There is one five-year cure in our series. The almost constant association of gall stones with gall bladder cancer does not prove etiological relationship, but it is very suggestive, and is all we have to work on at the present time.

4. Pancreatitis. The frequent association of pancreatitis (acute and chronic) with cholelithiasis is also suggestive of a causal relationship.

5. Focal infection. In the past five years, we have removed 22 gall bladders in an attempt to clear up all foci of infection in patients with arthritis with striking results in a few of these patients. The recent work of Rehfuess throws an interesting light on this relationship.

If treatment is indicated on account of symptoms or the possibility of the complications just enumerated, it should be surgical. If a patient refuses operation, or a clear-cut contraindication to operation exists, medical treatment, consisting of a low-fat diet, bile salt therapy, and removal of simple primary foci of infection (infected tonsils, teeth, etc.) should be instituted. In some cases symptomatic relief may be then obtained, but the risk of subsequent complications persists.

Cholecystectomy is the procedure of choice in the surgical treatment of chronic cholecystitis. Cholecystostomy or cholecystotomy with removal of stones are rarely indicated.

Since the operation is an elective one, we have time to obtain a thorough preoperative check. We have mentioned the evaluation of the condition of the liver, and the use of glucose preoperatively. Most of these patients are of such an age that a check of the status of the heart by a cardiologist, and an electrocardiogram are comforting. Obesity, per se, is not a serious factor, other than increasing the technical difficulties of the operation. The presence of intercurrent respiratory infection, both acute and chronic, should be ruled out carefully.

ACUTE CHOLECYSTITIS

The practitioner who turns to the current surgical literature for advice on the management of acute cholecystitis is not likely to receive much help, particularly if his reading is extensive. For, paradoxically enough, the more he reads, the greater will be his confusion. He will find authorities of equal eminence diametrically opposed in their ideas regarding the optimum time for operation in acute cholecystitis. Nor is the mental confusion on this subject limited to the authorities and the neophytes, for the average surgeon follows neither school of thought but relies on that sixth sense, commonly known as clinical judgment.

(a) **Diagnosis**—The diagnosis of acute cholecystitis is almost entirely clinical. Most of the technical aids which are so essential to the diagnosis of chronic cholecystitis cannot be utilized in acute cholecystitis because of the possibility of their being harmful to the liver parenchyma. The only exceptions to this rule are (1) the flat x-ray plate of the abdomen (which is only helpful if positive

density gall stones are present), and (2) certain of the liver function tests. The weakness of the liver function tests lies in their lack of sensitivity. They are positive only when between 70 and 80 per cent of the liver function has been destroyed. The galactose tolerance test is not contraindicated in suspected acute hepatitis and should have a more general use in order to rule out those cases of hepatic insufficiency which stand operation so poorly, a point that has been so repeatedly emphasized by Ivy<sup>5</sup>.

However, in spite of the lack of diagnostic aids, acute cholecystitis is not a difficult disease to recognize clinically, for a correct preoperative diagnosis was made in 96 percent of our cases.

TABLE I  
ACUTE CHOLECYSTITIS  
Preoperative Diagnosis

Diagnosis	No. of Patients	Percentage	No. of Deaths	Percentage
Acute Cholecystitis.....	308	96.3	17	100.0
Ruptured Ulcer .....	4	1.3	0	0.0
Acute Pancreatitis.....	2	0.6	0	0.0
Acute Appendicitis....	2	0.6	0	0.0
Appendiceal Abscess	1	0.3	0	0.0
Intestinal Obstruction	1	0.3	0	0.0
Intra-abdominal				
Tumor .....	1	0.3	0	0.0
Acute Surgical				
Abdomen .....	1	0.3	0	0.0
Total .....	320	100.0	17	5.3

(b) **History**—The importance of early surgery for gall bladder disease is emphasized by noting that only 5 percent of the cases in our series had not had symptoms referable to the biliary tract prior to the acute attack, and 86 percent of the patients had received medical treatment.

TABLE II  
ACUTE CHOLECYSTITIS  
Preoperative Symptoms

Symptom	Number	Percentage
Nausea .....	292	91.2
Vomiting .....	267	83.4
Jaundice .....	83	25.9
Chills .....	65	20.3
Dark Urine .....	41	12.8
Clay-colored Stools .....	28	8.7
Pruritus .....	7	2.2

(c) **Symptoms**—Pain, nausea, and vomiting are the outstanding symptoms of acute cholecystitis. They were present in 90 percent of our cases. Clinical jaundice areas were noted in one-fourth of the patients, and one-fifth of them complained of chills at the onset of the attack. The pain and tenderness were located in the gall bladder region in 95 percent of the cases, thus accounting for the high number of accurate diagnoses.

<sup>5</sup> Ivy, A. C.: Outline of liver functions and jaundice. *J. Michigan M. Soc.* 37:121-129, Feb., 1938.

The maximum temperature before operation would appear to be of some prognostic value, because the death rate of patients whose temperature was above 102° before operation was three times the rate of those whose temperature did not reach this level, and the one patient whose temperature went above 104° died after surgery.

Acute cholecystitis incites a prompt leukocytic response. A leukocyte count of above 15,000 white blood cells per cubic millimeter is an index of the seriousness of the condition, for in our cases the death rate was double the mean rate in those whose leukocyte count ranged above 15,000 per cubic millimeter. We have always rather arbitrarily used the figure of 20,000 per cubic millimeter as indicating impending gangrene of the gall bladder and as a definite indication for immediate operation.

TABLE III  
ACUTE CHOLECYSTITIS  
Duration of Illness at Time of Operation

Groups	No. of Patients	Per-centage	No. of Deaths	Per-centage
0 to 24 hours.... "emergency"	48	15	4	8.4
24 to 72 hours.... "Early"	96	30	7	7.3
More than 72 hrs. .... "Delayed"	176	55	6	3.4
Totals .....	320	100	17	5.3

**Management**—The management of acute cholecystitis is in the main an individual problem. Definite rules for handling are difficult to lay down, and only generalizations can be made. The mortality in a group of 320 consecutive cases operated upon at the Henry Ford Hospital was 5.3 percent. We have for many years practised early operation, i.e., the patients were operated upon as soon as they were diagnosed and properly prepared for operation by the administration of intravenous glucose. This restores the fluid balance of the body tissues and augments the depleted glycogen content of the liver. A review of our cases, however, suggests that the delayed method of handling gives the best results, for the mortality in the patients operated upon within 25 hours after onset was 8.4 percent and 7.3 percent when the operation was performed between 24 and 72 hours. The mortality was only 3.4 percent in the group of patients whose operation was delayed beyond 72 hours. This finding has forced us to modify our attitude somewhat toward early operation.

An almost identical observation was made regarding the period of hospitalization before operation. The group of patients that was in the hospital at least 72 hours before operation showed the lowest mortality rate. Certain other factors, however, also merit consideration.

In our cases, preoperative pulmonary complications increase the operative risk three times and cardiac complications double the risk. We also feel that liver insufficiency has not received the

attention it merits, and for this reason believe that all patients should have a liver function test before being subjected to surgery.

The age of the patient, too, deserves some thought, for our records indicate that the mortality after operation rises with each succeeding decade.

The real problem in the management of acute cholecystitis comes in the handling of those patients in whom the complication of jaundice exists. Jaundice is now becoming more and more recognized as a symptom of hepatitis. Certainly the gravity of the condition is dependent upon the degree of liver involvement. All available laboratory means should be employed to rule out the cases of extrahepatic jaundice and of acute yellow atrophy. Having determined that the jaundice is obstructive, Courvoisier's law may be of value in deciding whether the blockage of the duct is due to stone or to new growth. The law states that in the presence of a palpable gall bladder the obstruction is likely not to be due to stone. But, of course, this rule has its exceptions. We have found in our experience that a repeated positive guaiac test upon the stool is the only *constant* sign of new growth. Operation should not be performed in the face of a rising icteric index, for even if obstruction is complete, or almost so, a constant level is eventually reached. These jaundiced patients, of course, should have investigation of the bleeding, clotting, and prothrombin time and should receive vitamins D or K, bile salts, and blood transfusion, if the above tests at any time indicate a bleeding tendency.

TABLE IV  
ACUTE CHOLECYSTITIS  
Operative Procedure

Operation Performed	No. of Patients	Per-cent- age	No. of Deaths	Per-cent- age	Percent of Mortality
Cholecystectomy	174	54.4	13	7.5	76.5
Cholecystectomy plus Appendectomy	125	39.0	3	2.4	17.6
Cholecystectomy plus Choledochotomy	21	6.6	1	4.8	5.9
Total .....	320	100.0	17	5.3	100.0

**Operative Procedures**—Cholecystectomy was performed in 93 percent of the cases and is the operation of choice. However, there are certain cases in which cholecystostomy, or one of its modifications such as the procedure suggested by Dr. Willis Gatch,<sup>6</sup> is a life-saving measure.

Most authorities advise that the appendix should not be removed at the same time as the cholecystectomy for acute cholecystitis. However, in our cases, the appendix was removed in 39 percent of the

<sup>6</sup> Gatch, W. D.: Chemical Cholecystectomy. *Tr. South. S. A.* (1929) 42:110-114, 1930.

<sup>7</sup> McClure, R. D.: Post-operative complications of cholecystectomy, a study of 700 cases. *Ann. Surg.* 90:253-260, Aug., 1929.



cases in this series without any deleterious effect on the mortality rate. In fact, the rate was even lower than the mean rate, but this may be partially explained in that only in the best risk patients and in those not acutely ill was the appendix removed. Cholecholestomy was performed in 6.6 percent of the cases. It did not add to the operative risk.

#### SUMMARY AND CONCLUSIONS

Clinical impression is of limited value in the recognition of chronic cholecystitis, for its diagnosis depends largely upon laboratory and technical methods of investigation. A plea is made for more complete study of all patients complaining of persistent indigestion.

Acute cholecystitis, on the other hand, is a condition in which a clinical diagnosis can be made with a high degree of accuracy (95 percent of the cases reported). A plea is made for the greater utilization of the galactose liver function test in acute cases.

#### ANALYSIS OF FACTORS IN THE DECLINE OF TUBERCULOSIS

The mortality from tuberculosis has declined from about 30 per 10,000 of population to 5 or 6 in the last fifty years. What are some of the possible factors which have brought about this decline? In an analysis Wolff<sup>1</sup> distinguishes (1) a specific factor, (2) a hereditary factor, (3) a social factor, (4) a population factor and (5) the medical prophylactic factor.

The tubercle bacillus probably comes in contact with the entire population in urban areas; hence the bacillus alone is not sufficient to produce clinical illness, still less an epidemic. The decrease in mortality cannot be attributed to a natural protective inoculation, for, as Neufeld of the Robert Koch Institute says, natural inoculation with tuberculosis produces a limited immunity which is only relative and rapidly diminishes. The slow course of the disease clearly shows that the infection does not carry with it specific immunity. The relative immunity of which Neufeld spoke may be broken when resistance is reduced, as shown by the rise in the mortality rate during the World War.

A constitutional factor does play a part in tuberculosis mortality. In the same family under almost identical environment one may see some children succumb to tuberculosis while others do not. Inherited factors produce a constitution that plays an important part in the pathology of most diseases. A precise differentiation of what qualities predispose to tuberculosis or what kind of constitution affords protection against it has not been determined. The figures in Pearl's investigation show that, where one or both parents were actively tuberculous, virtually three fourths of the nontuberculous offspring have been in just as close contact with open cases as their brothers who acquired the disease. . . .

Among German writers, Fritz Lenz came to the conclusion that blond types are less affected by tuberculosis than brunets. Lenz writes that tuberculosis has been a factor in producing in northern Europe, which is poor in sunlight, the blond clear-skinned type, while in the southern part, where the blond type is more susceptible to malaria, there has been a change in favor of brunets. Thus Lenz explains the frequency of blond Jews in central Europe by the selective action of tuberculosis in favor of blonds. Wolff believes that more exact knowledge of the epidemiologic data suggests that

the lower mortality of Jews from tuberculosis is correlated with economic factors.

The social factor is probably the most important factor in the downward trend of tuberculosis. . . . The factor of economic well being can be analyzed into such parts as housing, occupation, nutrition, size of family and hygienic education, all of which are related. National nutrition is of great importance. The mass experiments in nutrition provided by the World War speak eloquently on this point. As early as 1915 in England and Germany the tuberculosis mortality rate was higher than in 1914. If nutrition has the main role in increasing tuberculosis mortality during the World War, improvement in nutrition over the last fifty years has had a part in the decline.

Various investigators have shown that occupation plays a part in tuberculosis mortality. In the standardized mortality figures in an occupational study among males in England and Wales during 1921-1923, the tuberculosis mortality for agricultural workers was found to be 96, for brewers 115, for bricklayers 127, for cotton spinners 175, for shoe factory workers 298 and for tobacco factory workers 326. Shoemakers are not exposed to any particular hazard and yet they show a high mortality. That is because persons enter this occupation who are physically unfit for other occupations. For the same reason bricklayers have a relatively favorable mortality. Bricklaying is not an occupation for men of poor physique. In spite of the risks of industrial work, the average tuberculosis mortality in industrialized states is lower than it is in the agricultural states, where there is a lower standard of hygiene and of living. The better social, economic and hygienic conditions in the industrial states, together with better medical treatment, probably is the basis of this difference. Industrialization has brought with it not only dust and industrial diseases but also an elevation of the national well being which much overcompensates the disadvantages of industrial work.

Closely connected with industrialization has been a biologic change in the industrialized states reflected in a decline in the birth rate. With a smaller family the average income per head increases whether the wages are increased or not. . . . There is even a direct influence on the possibility of infection, for the virus in a small family has a smaller field of operation.

In a study of the mortality of young adults from tuberculosis, Bradford Hill concluded that the level of mortality in the different rural districts was influenced by the movement of the population, particularly internal migration. The urban districts which have attracted young people showed a decrease in mortality, while the districts that have lost population tended toward increased mortality in young adults. The success of medical treatment and medical care of people generally forms a part of the social environment, and practice of medicine in the field of tuberculosis ranks high.

Thus a critical examination of statistics shows that of all the factors influencing the epidemic march of tuberculosis the decisive factors are the socio-economic and socio-biologic, combined with changes in the standard of living brought about by industrialization. The tuberculosis mortality rate has fallen greatly because particular strata of the working classes are now as well to do as or even better off than many of the middle classes. Compared with these the natural environment—climate, sunshine, soil—is of minor importance.

A national campaign against tuberculosis, in Wolff's opinion, should have as its goal further improvement of the social environment so that persons infected by tuberculosis will not become victims of the disease. It should never be the task of the physician to breed human beings refractory to tuberculosis, ignoring all other mental and physical hereditary qualities. Further extension of the process that has been at work in the last fifty years may yet bring tuberculosis to the vanishing point.—*Editorial Jour. A.M.A.*, Sept. 10, 1938.

<sup>1</sup> Wolff, Georg: Tuberculosis and Civilization: Part II. Interpretation of the Etiological Factors in the Epidemiology of Tuberculosis, *Human Biology* 10: 251 (May) 1938.

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MARCH, 1939

## Editorials

### MALADJUSTMENTS

Mind is an instrument of adaptation. In this country during the last century, man has done much to unbalance nature as has been made manifest by erosion, floods, droughts, and dust storms. The tendency for everybody to want to meddle in everybody's business, coupled with the gullibility of the masses, creates a real problem often called "maladjustments" which work through this instrument of adaptation.

Intolerable heredities are causing intolerable environments for all, but not in force today as it will be in the next three generations if the present trend of birth distribution continues. In the confusion concerning the balance between competition and cooperation for progress, many distortions are coming about. No longer is there much distinction between social security and personal security. No longer do we admit that some people should, by virtue of their potentialities, strive mostly for physical and spiritual comfort or even status. Everybody must strive for power because every new born male and female child "has a chance" to be the high executive of this country, providing that he goes "through" our schools. It is no wonder, then, that we have unbalanced behavior manifested by anxieties, phobias, inferiority attitudes, superiority complexes, and other mental anomalies in unpredictable proportions.

Before our population became relatively congested, and before the family doctor was forced by the public to the wholesale use of laboratory procedure to "rule out" all organic possibilities, he did have time (even though he could not define pyknic or aesthenic) to study people and counsel

gradually, often incidentally, with them toward their production of a wholesome personality.

The insane, the feeble-minded, and the criminal classes are specialists' problems. But the emotionally unstable, the psychopathic personalities and the so-called minor conduct disorders have become the problems of the educator, the theologian, the social worker, psychologist, and vocational director, all of whom are trying sincerely to do a good job but without correlation. For quite a while in the past, psychiatry was juggled between the monks and the physicians. Even today the medical profession has numbers who are dubious. It is true there have been too many promises made for the Cinderella; dramatically decorated case reports of single instances and single incidents have been put out on a generalized basis with promises which did not hold.

Yet man is a human being and not a machine. The adjustment of this being depends not only upon the technics of chemistry, laboratory procedure, and corrective surgery, but upon the art of handling people. Maladjusters are medical shopkeepers and always will be. If our profession is to enhance its position as the correlating officer for the lives of our people, there must be uniformity of advice given to the clients. Such advice, instead of being reflections of the practitioners' own personalities, must be clarified by training; and, in turn, it will rejuvenate the art of medicine, thereby bringing it back to its logical place among the philosophies.

### LAMPS TRIMMED AND BURNING?

Not long ago there developed in one of our larger counties of the state a near-scandal in the matter of the relief problem. Certain county officials, newly elected, were amazed at the proportions to which the expense for poor relief had grown. They demanded an investigation which was made by one of the state groups. The revelations were astounding: a frank declaration was made that not only were approximately fifty per cent of the relief clients not entitled to such relief, but that prices paid for food, clothing, and medical attention were exorbitant. The claim in regard to medical attention naturally attracted the interest of the local county medical society which had long maintained that medical relief in that area was not properly handled. However, notwithstanding the fact that the medical group concerned had advance information that at some time this whole matter would be held up to public attention, no definite plan that could be presented at a moment's notice had been prepared.

When the storm broke, it was necessary to act quickly, and the society was exceptionally fortunate in having employed, only a few weeks previously, a full time, lay executive secretary, a man who knows his way around and a man of decided action. In the short time that he had been on the job, he had made a study of the medi-



cal relief question and had gone to a neighboring state which was even then operating a very successful plan. For twenty-four hours there was much scurrying about, hasty conferences were arranged, and in a short time the wires were carrying messages to relief authorities, saying that this county society would suggest a workable plan that would afford adequate medical care to the indigents and at a lowered cost.

A few of our county medical societies already have similar plans in operation; a few more have developed such plans even though they have not been accepted by the authorities in charge; many, it is feared, have made no such plans, and it is to that group that this editorial is particularly addressed. See that your lamps are trimmed and ready for the burning.

There is no doubt that the medical relief question is a live issue in this state. Tax study bodies already have delved deeply into the present costs and have expressed themselves about the matter in no uncertain terms. The brief investigation mentioned will serve to bring about a more intelligent study of what has been going on in relief circles, and it is very evident that the medical profession will come in for a share of the censure.

There is no good reason why relief work of this sort should be turned over to an individual doctor, particularly in the larger communities. Neither should the main contention of our profession be overlooked—that the physician-patient relationship must not be disturbed. The indigent sick should have the right to call the physician in whom they have the most confidence, the physician that is personally known to them. That very factor of confidence in the physician in charge is a very great item in the successful management of any illness.

We predict that a state-wide demand soon will be made by the public and by the press for something to be done to change the present unsatisfactory set-up for the treatment of the indigent sick; when that time comes, our county societies must have workable plans ready for presentation.

Do not wait until the emergency is at hand. Place your county medical society with the Wise Virgins whose "lamps were trimmed and burning" when the great day came!

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## POSTGRADUATE EDUCATION

In his presidential address at the Indianapolis convention last October, Dr. Herman Baker commented on the subject of postgraduate work and made several recommendations, most of which involved the outlay of considerable amounts of money and would require a rather marked increase in Association dues.

Incident to the discussion of the matter in the House of Delegates, it was pointed out that an increase in dues could not be made at that time and that at least a year's time would be necessary

to bring about such an adjustment. Since then the matter has been discussed by the official family, and at the recent midwinter meeting of the Council the proposal received extensive attention. Dr. Baker made further suggestions and said that he felt that a beginning could be made on such a program during the present year. We are in accord with that opinion after having spent some time and thought on a plan similar to the one presented by Dr. Baker.

It is true that an elaborate state-wide program seems impossible of accomplishment just now, but there is no reason why the ground work cannot be laid for a more pretentious program. Fortunately, the larger medical societies of Indiana are so located geographically as to lend themselves admirably to the proposed plan. Beginning with Evansville, which could easily form a "center" for the southwest counties, continuing to Terre Haute, Lafayette, Lake County, South Bend, Fort Wayne, Muncie and perhaps Richmond as other "centers," there is rather complete coverage of the State with, of course, Indianapolis to take care of the central portion.

Medical society affairs in Vanderburgh, Lake, St. Joseph, Allen, and Delaware-Blackford counties have undergone reorganization, to a greater or less degree. Three of these have adopted full or part-time executive secretary plans which it is believed will add materially to the effectiveness of these groups. As readers of *THE JOURNAL* well know, the Delaware-Blackford County Medical Society has reorganized in a manner that has attracted more than state-wide attention and it seems well on the way to unprecedented success in a postgraduate study program.

Lake county, with its full time secretary, a man who already is imbued with the idea that a postgraduate program is a vital necessity to his organization and who has begun preliminary plans toward that end, promises to take care of the northwest section of the State.

If the Vigo County Medical Society and the Terre Haute Academy of Medicine can be prevailed upon to adopt a plan similar to the plan in operation in Muncie, that section of the state will carry on without much trouble. The other points mentioned have become centers of real medical interest, that is, the members of these societies are alive to the present day needs of the profession and will fall in line once the program is put into effect. Thus it seems that about all that is needed is the proper degree of leadership and a directing hand to point the way.

In addition to the educational value of such a program, there is an added interest. Granted that Indiana men are named as instructors in these programs over the state, it will be a matter of only a few years until we will have a trained group of teachers, men who are familiar with their subjects and are able to present their information in an interesting way. Too often it has been truly said that there is a dearth of Indiana medical men

who are first-rate speakers and writers, and this has been partially due to the fact that opportunity to develop these traits has been lacking. We doff our hats to no other state in the quality of our "medical brains." All that is needed is the opportunity to exhibit these wares and that will be provided in the graduate study program.

## DO YOU WANT YOUR OWN DOCTOR . . . OR THE "STATE DOCTOR"?\*

"What a silly question," reply Mr. and Mrs. Citizen. "Of course, we want our own doctor for ourselves and our family."

But, dear Mr. and Mrs. Citizen, it is not a silly question. It has been asked in all seriousness. *You are going to have to answer it, too—and before long.*

Here are some facts which may startle you:

Do you know that the United States Congress may be asked to enact legislation which would establish in the United States a *costly, politically-controlled system of medical service*, a la European model?

Do you know that a system of compulsory health insurance or a system of tax-paid medical care for all persons, both of which are being advocated and either of which would be operated and controlled by governmental agencies, would *change entirely the relationship which now exists between you and your family doctor?*

\* \* \*

Let's try to visualize what would happen if Congress should adopt either of these systems: You would be regimented so far as your health and medical needs are concerned; told when you need medical attention; when you do not; and where to go to get it—if "the bureau" decides you need it. In all probability, you would have to take the doctor sent by "the bureau"—*not your own doctor.* You might have to visit the government clinic.

Your present family doctor would be regimented, too. He would become a government employe, subject to orders from "the bureau." "The bureau" wouldn't be interested in seeing that you get your doctor. You'd have to take *any doctor* who happens to be on duty. Your doctor might be assigned elsewhere.

You are quite correct: This procedure would give you and your family only a salary-earning pill dispenser. Quite true: You would have little reason to take the "state doctor" into your confidence. Doubtless you would have little confidence in him—not like the confidence which you have in *your own doctor* with whom you are intimately acquainted and who may have doctored your mother and your grandmother before you.

What kind of medical care would you get?

\* Reprinted by permission from the *Ohio State Medical Journal*, February, 1939, Vol. 35, No. 2.

That's a good point. Probably you would get an *inferior grade of medical attention.* The doctor assigned to your case never saw you before—he may never see you again. He should worry—you're just another case. You'd get a *hasty diagnosis and the standard treatment.* Remember, the "state doctor" would have to spend a lot of time filling out forms and complying with red tape. He wouldn't be able to spend much time on any one case. Then, too, he may not be very well posted on new methods of diagnosis and treatment because he hasn't had the time or the incentive, to keep himself informed by attending medical meetings and reading medical books.

\* \* \*

Everyone knows that the sick are not in any sense standardized and that, therefore, mass treatment can never be successful. However, this fact will not make much impression on "the bureau" which will be particularly interested in figures and forms.

Everyone knows that a patient usually picks a doctor because of the doctor's personality, integrity, honor and ability. You'll have little chance to use your own judgment under a governmental system.

Everyone knows that the present system forces onto the physician full and individual responsibility to and for his patient, challenging the doctor to do his utmost for the patient. This will not be the case when you become a patient of "the bureau," not of the doctor.

\* \* \*

This will be your fate unless you do something to stop the present movement to socialize the practice of medicine in this country. If you and your friends say "no," Congress will not enact the proposals referred. *You stand to lose under socialized medicine. It's up to you, therefore, to stop it now and each time it rears its head.*

(Note: A reasonable supply of this article in leaflet form may be obtained by members from *The Journal*.)

## Editorial Notes

100% COUNTIES: BENTON, SCOTT, SULLIVAN, AND WHITLEY

Remember that May 1 is May Day—Child Health Day. For 1939, the slogan is "The Health of the Child is the Power of the Nation." Announcements in regard to programs will be carried in the April and May issues of *THE JOURNAL*.

The Indiana State Medical Association showed a net membership gain of 104 in 1938, this despite the fact that no campaign for new members was



put on. Our total, paid-up membership was 3,083. There is not one good reason why we should not have four thousand members within the very near future.

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Delinquency, insofar as Association dues is concerned, begins February first. If you do not have your 1939 membership card, better get in touch with your secretary at once. During the delinquent period your medical defense is lapsed and can be reinstated only after your dues are received at headquarters.

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No matter what views we hold in regard to the alcohol problem, the fact remains that alcohol and gasoline afford a pretty poor mixture. It is our opinion that whenever our courts use the mailed fist variety of technique in handling these cases in which traffic regulations are involved, just then will traffic accidents be reduced in number.

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A State Board of Health official recently remarked that "The Lake County syphilis survey is making history; the work being carried on in this undertaking will change the syphilis picture to a very great extent." We are advised that the U. S. Public Health Service is very carefully watching this survey. At its conclusion six months hence, THE JOURNAL will print a complete story of the project.

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The Deaconess Hospital of Evansville has created a new division within its medical staff, naming several of the older staff physicians as composing the emeritus staff. Twelve men have been accorded the honor of being charter members of this group and for them a testimonial dinner was given on February twenty-first. The event also served as a part of the celebration in connection with the forty-seventh anniversary of the founding of the hospital.

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Most of us have a fair idea of what the Code of Ethics is all about. Some of us have read the complete Code. Often we have remarked that, after all, ethics as related to the medical profession (and to any other profession, for that matter) consists in doing the "decent" thing. The opening paragraph of an editorial in the January *Journal of the Medical Association of Georgia* states the matter succinctly: "The code of ethics of the medical profession has survived the test of time, having been promulgated before the time of Christ. It is nothing more or less than the 'Golden Rule'; fair dealing with the people whom we serve, and the same sort of conduct between members of the profession."

It's sugar-makin' time in Indiana! Along in March the sugar maples give forth the sap from which that most delectable table delicacy is made. Even now, in farms on which a sugar camp is located, its denizens are busy getting the buckets, spiles, and other paraphernalia in order and soon the camp will hum with activity. (We wrote this in order to clear our record. Last year, in a similar note, the word *spiles* was spelled *splies*; no one save the editor knew what was meant.)

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The *New York State Journal of Medicine* has another new dress. Some time ago a change was made in the format of that magazine, and now comes another great improvement. The cover page is a soft gray, with the name of the magazine and the date printed in dark blue; its simplicity adds to the beauty of the cover. Similar improvements in type and content have made it, within a few issues, one of the most readable medical journals that we receive.

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Many of the older members of our Association were well acquainted with Dr. John N. Hurty, for many years secretary of the Indiana State Board of Health and a pioneer in many health movements. Dr. Thurman B. Rice, editor of the *Bulletin* of the Indiana State Board of Health, is writing a biography of Dr. Hurty and is seeking intimate details of the life of the man. Those members who recall interesting bits of information regarding Dr. Hurty and his work are requested to communicate with Dr. Rice, State House Annex, Indianapolis.

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Dame Nature knows no favorites. Her vagaries are distributed here and there over our state with an impartial hand. A few weeks ago, northern Indiana residents arose to look out upon one of the worst snow storms in history, a storm that precluded any notion of getting to work for a day or two; in fact, folks were definitely "holed up." A few days later, southwestern Indiana experienced a similar storm, but in that sector the residents have the distinct advantage of knowing that in a very few days Old Sol will take care of the snow problem. In the northern counties, after two weeks, traveling about is still a bit precarious.

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Smallpox is with us once more. The present winter season shows a considerable increase in the number of cases over last year, and our capital city has a sufficient number of cases to be justly disturbed over the matter. Smallpox is one of those diseases that has little or no reason for existing since it can be stamped out completely. Our health authorities are not to blame for this present flare-up; rather we should shoulder the

blame ourselves, for it is only by the constant preaching of the necessity for vaccination against this disease, over regular intervals, that we can hope to exercise that degree of control that most certainly lies within our power. Dr. Herman Morgan, secretary of the Indianapolis Board of Health, is asking authority to enforce a compulsory vaccination order for all school children. Physicians can help by urging parents to have their children vaccinated.

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One of the early findings in the syphilis survey now being made in Lake County under the direct supervision of the Lake County Medical Society concerns a group of 10,000 men examined by a local company—6,900 present employees and 3,100 applicants for employment. Blood tests showed a little more than 4½% positive serologies. The group examined included some two dozen nationalities and represented practically every race. No attempt has been made to analyze these figures as yet, but it is anticipated that the analysis will provide much important data for health authorities.

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A little more than six months hence we will be heading toward Fort Wayne for the annual convention, October 10, 11, 12. The report of the local convention committee, made at the mid-winter session of the Council, indicates that plans already have been made which will assume a general program of unusual interest. Something seems to have gotten "in the blood" of those Fort Wayne chaps, these past few years; pepped up, no end, they are. It is not too early to begin thinking about your hotel reservations; looks as though there will be room for all, but the early reservations count, you know.

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Dr. P. H. Becker, for many years assistant to the late Dr. James O. Parramore, superintendent of the Lake County Tuberculosis Sanitarium, has been named to succeed Dr. Parramore in that capacity. Dr. Becker is well qualified for the post, and his selection has met with the approval of not only the local members of the medical profession but with that of practically every civic organization within the county. A new wing, with 100 beds, is about to be opened, and the new chapel will be named in honor of the memory of Dr. Parramore. This institution has acquired a national standing of merit in the management of tuberculosis.

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There has arrived from the Union Medicale Balkanique, a medical organization of physicians in the Balkan States, in Europe, an "anti-war" communication calling attention to the terrible

sufferings that a "total war," as they term it, would entail upon the citizens of the countries involved. They call attention to the fact that nations have not yet decided as to the use of certain gases during a state of war. The letter states: "We appeal to doctors of every nation to take active measures and to fulfill the professional and humanitarian duty of awakening and stirring public opinion." Citizens of the Balkan countries have for many years past heard rumors of impending wars, and it is little wonder that this medical group has sent out such an urgent appeal.

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The lay press seems to have enjoyed itself over an article by Dr. John B. Dynes in the *New England Journal of Medicine* for February second. The article was a study of alcoholic patients admitted to the Boston Psychopathic Hospital in 1937. Of 382 such cases admitted, only 57 exhibited fear of any sort. Snakes, once supposed to be an important factor in delirium tremens, have fallen from grace, but 14 patients having been bothered by seeing them. Only one patient saw a rat, while ten had to do with horses, four with elephants (one of the pink variety). Faces and dead bodies concerned several patients and lions and tigers attracted the attention of two. Well, repeal seems to have done something.

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The Metropolitan Life Insurance Company offers to the medical profession the use of a film on the subject of pneumonia. The picture carries the greatest amount of heart interest together with a bit of propaganda of the proper sort of any film we have viewed. The film comes in the standard width of 35 mm. and is adapted to use in any movie house. The State Board of Health also has a 16 mm. film, with projector, available for smaller showings. Either of these films may be obtained upon application to Dr. Verne K. Harvey, director of the Indiana State Board of Health, State House Annex, Indianapolis. It is also possible to arrange for a showing of the 16 mm. film, the Board supplying the projector and an operator. "Henry" Waterson, only recently installed as full-time executive secretary of the Lake County Medical Society, already has arranged for the showing of the film in every movie house in the county, and it is expected that more than 150,000 Lake county folk will view this picture during March, and they will have a very clear picture of pneumonia and its ravages.

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At this writing, with about half of the sixty-day legislative period gone, it seems that our Solons have accomplished little. With the two branches in control of opposite parties, it was expected that there would be an unusual amount



of jockeying for position, but no one opined that this would continue until half the legal term had passed. This thing known as politics seems to become more and more intricate each year. A one-time astute politician now openly vows that he knows nothing about the game; we wonder if any one does! There has been introduced a great deal of legislation that will have a profound effect upon the medical profession. At press time, many of these bills still remain to be passed upon. The April JOURNAL will carry a complete report in regard to medical legislation passed.

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Medical boards in other countries are having their troubles with graduates of foreign medical schools and with physicians in European countries who have found it advisable to remove to other climes. A member of the medical board of New South Wales states that in recent months he has been importuned by many to take care of such cases. We are reminded of incidents that occurred when we served as executive officer of the Indiana State Board of Medical Registration and Examination. Many times, under the guise of "personal favors," we were asked to overlook some phase of the medical law and grant licensure to some one otherwise not entitled to it. Now when so many foreign physicians are coming to this country, we are often asked to do something about this or that individual. Our present Board has established definite rules regarding such cases and there can be no objection to their enforcement. Further, we opine that an American physician would experience no little difficulty in gaining permission to practice in some of the European countries.

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Advertising is what makes THE JOURNAL possible. Without it, we could not give you this magazine. The two dollars we receive from each member pays only approximately one-third of the expense of publishing THE JOURNAL. Advertisers of the various wares in which the medical profession is interested are very generous with us; many of them have carried advertising in THE JOURNAL for years, and apparently they are satisfied with their expenditures. A letter from the director of the Cooperative Medical Advertising Bureau which solicits advertising for the majority of the state medical journals causes us to wonder if we are fair to our advertisers. Are we properly responsive to the advertisements? How many of our readers take advantage of the offers of samples of various products? If even a small per cent of our members would make a practice of doing this, our advertisers would have concrete proof that their advertising is of value, and within a short time our advertising income would materially increase.

The Indiana rabbit hunting season officially closed on January tenth, and within a few weeks we may expect a final report on tularemia in our state. The U. S. Public Health Service in a recent bulletin states that some 8,000 cases have been reported up to 1938, with 396 deaths. Up to November, 1938, there had been reported 613 cases for that year, and that figure did not include reports from Illinois, Ohio, Virginia and Kentucky, states in which the incidence of the disease has been unusually high in past years. The New England states seem to have been singularly free from the disease during past years and this has been credited to climatic conditions which do not favor a free growth of ticks, lice, etc. A recent report of four cases of tularemia in the New England States for 1938 might indicate that that section will be infested in the future. A devoted Nimrod, in discussing rabbit fever, made light of it and said he thought there was "something the matter with the blood," else one would not become infected. He was shown the publication from the Public Health Service and since then he and his friends are rabbit fever conscious and have vowed carefully to survey each bunny before putting it into the bag.

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Present indications are that the St. Louis meeting of the American Medical Association will draw the largest registration in its history. Centrally located, easy of access, and with a plentiful supply of hotel accommodations, St. Louis is so near to Indiana that Indiana medicine should be represented by several hundred of our members. The fact that the medical profession is "on trial" should be an extra inducement for large attendance. It must be remembered that official registration is limited to *Fellows* of the American Medical Association. As we have repeatedly stated, all members of State organizations are *members* of the American Medical Association, but all are not *Fellows*. The latter classification is limited to members of the various state organizations who have made application for A.M.A. fellowship. A member may have subscribed to *The Journal of the A.M.A.*, but this does not constitute a fellowship. Fellowship may be obtained by application on the proper form which may be secured from the headquarters office. The cost of fellowship, including *The Journal of the A.M.A.*, is eight dollars per year. Never has it been so important for state members to obtain fellowship. We are assailed from every side, and it is only by a united front that we can hope to defeat those who would break down our house, a house that has been erected through years and years of effort.

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PLAN TO ATTEND THE I.U. MEDICAL SCHOOL  
 POSTGRADUATE COURSE IN INDIANAPOLIS,  
 APRIL 10-15.

## President's Page

### SPEECH DEFECTS AND THE MALADJUSTED CHILD

Reliable statistics show that from three to five per cent of the school population is handicapped by some degree of deafness, and that about four per cent of the children in the United States are afflicted with speech defects. With these facts, it is easy to realize that impairments of speech and hearing are great handicaps, because hearing, language comprehension, speech, and education are the basic factors in the formation of an individual as a normal, valuable citizen.

It has been reported that a certain percentage of children are retarded in school because of these defects. This necessitates repetition of school terms, the cost of which is enormous. This is only a small part of the economic problem, because these children become inefficient workers and maladjusted individuals who very frequently are unable to be gainfully employed, not only because of their lack of skill but because of their defects.

Prevention and correction of these conditions can usually be made in the preschool child, or during the first few years in school, by alertness and keenness of observation on the part of physicians, teachers, and parents. Early detection of these cases and the institution of corrective treatment immediately helps to keep these handicapped individuals in their normal place both in school and in society. This alone may prevent a child from becoming a psychiatric problem.

In order to correct these difficulties, it is vitally necessary that an accurate diagnosis is made. Effective therapy cannot be accomplished until the cause of the defect has been determined, and in order to diagnose each one accurately, the combined facilities of the medical, psychologic, psychiatric, re-educational and social therapies are necessary. Complete audiometric, otolaryngologic and general physical examinations must be made in order to determine if any organic pathologic conditions exist. The anatomic pathologic conditions should be corrected if possible and speech therapy and hearing aids instituted under supervision.

Organic causes of speech defects are: cleft palate, submucous clefts, paralysis of the soft palate, holes in the soft or hard palate due to syphilis and tuberculosis, hypertrophies in the nose, tumors, adenoids, papillomata on the vocal cords, meningeal or cerebral diseases or damage, or deafness.

Some of the common types of speech impairment are: delayed speech which may be due to mental deficiency, slow development due to a severe illness, or congenital defective hearing, stammering, dyslalia, disarthria, stuttering, rhinolalia, echolalia, lispers, and baby talkers.

Deafness may be congenital or acquired, the latter generally the result of a severe otitis media in early infancy, cerebro-spinal meningitis, measles, scarlet fever, and late hereditary syphilis.

In order to alleviate these sets of circumstances, the larger cities throughout the United States, through the co-operation of Speech Departments of the Universities, have set up speech and hearing clinics. Except for the private teaching that has been done in Indiana, and the work at Riley Hospital, there has been no definite constructive work, until a project was sponsored by a state philanthropic society, Psi Iota Xi, under the auspices of the Indiana University Division of Speech and Indiana University Extension, by which means it has been possible to establish a traveling clinic for speech and hearing disorders. The staff comprises four persons, one in charge of group and individual hearing examinations, one in charge of the speech work, one in speech tests, and one in psychological tests. The services of these people are available to the State of Indiana during the 1938-1939 school year, and they have tentatively planned to contact fourteen centers, subject to the approval of the school superintendents, which are as follows: Bloomington, Indianapolis, Muncie, Richmond, Aurora, New Albany, Evansville, Vincennes, Terre Haute, East Chicago, South Bend, Fort Wayne, Kokomo, and Columbus.

Approximately a week will be spent by this clinic group in each location and, through the co-operation of the parents and teachers, about ten to fifteen handicapped children will be tested each day. Suggestions for remedial work for the condition will be made, and corrective classes will be held for small groups of defective children from the school. Individual instruction will be given to each child and typewritten instructions to the parents and teachers whenever possible.

Education of the parents is of prime importance. It must be impressed upon their minds that if a child has any sort of a defect, it should be corrected if possible. They must be taught that so-called "tongue-tie," shock, left-handedness, baby talk, lisping, stammering, and stuttering are not outgrown, and it is not fair to the child to allow him to go through school without attempting to correct the condition. Cooperation of physicians is necessary in observing the gradual onset of such defects so that corrective measures may be instituted as early as possible.

*E. M. Van Burskirk.*



## MENTAL HYGIENE CLINICS FOR INDIANA

GEORGE C. STEVENS, M.D.\*

INDIANAPOLIS

The mental hygiene clinic is neither new nor radical in conception. For many years some of the more progressive states have included in their mental health programs provisions for the operation of state supported mental hygiene clinics. The last three decades have brought about such an increase in our knowledge of mind and its development and function in health and disease as to warrant the description of a "psychological medicine." The historical approach to the study of the various mental disorders has repeatedly evidenced the important role in the development of the psyche which the setting of childhood plays. Many of the dishabilitating mental states of the adult years can be more or less directly traced to influences deriving from the environment of childhood. We are aware, also, that mental diseases rarely make an unheralded appearance, that prodromal signs and symptoms of personality change are often to be observed for long intervals before the illness finally takes an acute psychotic form, so that intervention during this beginning state might well succeed in heading off psychosis. These and other contributions of psychological medicine give hope for the formulation of programs of preventive psychiatry—for the contribution which the mental hygiene clinic may make.

The problem of mental ill health is one of the most urgent in our times. It cannot be adequately met by state programming only for the individual who has already developed a psychosis. Though the newly developed "shock" therapies are giving us a new vision of the possibilities of treatment of the psychotic, we must still provide facilities whereby the occurrence of mental diseases may be limited. Whilst the prognosis for recovery from a functional psychosis is much better than it was before the insulin and metrazol methods were available to us, there is still to be considered the attendant economic loss as well as the "handicap of stigmatization" which the psychotic illness imposes as a burden.

In America today approximately fifty-eight per cent of all hospital beds are filled by the mentally ill. According to reliable figures from two eastern states, a young man of fifteen years has about one chance in twenty of entering a mental hospital as a patient at some time during his life, and one chance in ten of being economically disabled due to a less serious mental disturbance. These are serious figures; they point to an imperative need for preventive programming in which program the mental hygiene clinic seems to offer most hope today.

The mental hygiene clinic aims to assist in the education of the community and of the individual in sound principles of mental health conservation. In the private physician the clinics have found their most understanding support, as well the obvious agency to whom patients may be referred for intensive follow-up treatment not possible to the function of a part time clinic. The detection of beginning psychoses, remedial measures with children who are problems to the parents or the community, follow-up work with patients newly furloughed from state institutions, and with individuals on parole from correctional institutions, form part of the activities of the mental hygiene clinic. Many problems of an emotional nature in which there is also the factor of economic dependency come to the clinics, and it has been possible through psychiatric and case work assistance to enable the individual on occasion to leave the relief roles with the attainment again of a status of self support.

Cases are referred to the clinic by physicians, by the clergy, social agencies or individuals. Persons without means for private assistance are given help by the clinics; those who can afford treatment are referred to private physicians or sanatoria. Whenever a physician requests follow-up assistance with a case originally referred by him, this is gladly given; however, the clinic will not go beyond an initial study and report back to the referring physician unless additional work is requested.

The Department of Public Welfare which, through its supervision of the state hospitals for the mentally ill, has responsibility for the Indiana program of mental health, is establishing a series of part time mental hygiene clinics to serve most communities of the state. The approval of the Executive Committee of the Indiana State Medical Association for the clinic program was sought and secured; five physicians were given membership in the Indiana Council on Mental Hygiene to be a liaison group between the Department and the medical profession. In each county where it is proposed to offer services of a mental hygiene clinic team, the program is first submitted to the county medical society, and only after an invitation has been extended by the membership of that body does a clinic come into operation.

It will be the Department's policy to cooperate closely with the medical profession, whose support for this program of preventive psychiatry is sought.

\* Director, division of Medical Care, Department of Public Welfare.

## SEVERAL INDIANA COUNTIES COMPLETE THE A. M. A. SURVEY

These brief summaries are taken from the reports sent in by various county medical society secretaries. Reports from two counties were so incomplete as to be worthless in spite of vigorous efforts on the part of the secretary to have the individual blanks completed and returned to him. The percentage of return of blanks

in the various counties is a rather good indication of the percentage of physicians who are sufficiently interested in their status as professional men to be willing to devote some time and effort to an analysis of the needs in their own communities. Reports from other counties will be summarized in the April JOURNAL.

### ALLEN COUNTY COMPLETES A.M.A. SURVEY

Allen County, with an estimated present population of 165,000 (1930 census: 146,614) has 167 physicians and 80 dentists in active practice. Fort Wayne's population is 114,946 (1930). Of the 209 forms sent to physicians and dentists, only 43 were completed and returned. Four hospitals, 2 nurses, 2 health departments, 2 of 3 welfare and relief agencies, 2 school systems, 1 college, and 26 of 77 pharmacists replied as requested.

Allen County has 165 private duty nurses and 21 public health and visiting nurses available for full time duty. The president of the pharmacists' organization estimated that the county has 78 drug stores and 150 pharmacists. There are four general hospitals, one tuberculosis hospital, and one isolation hospital. There are two governmental hospitals. Of 814 available hospital beds, 539 are in private rooms (1 bed only), 150 are in semiprivate rooms, and 118 are in wards. Three reports indicate bed occupancy for 1937 as 71%, 55%, and 63%, or an average for the three of 63%. Rates are \$3 per day for wards, \$3.50 to \$4 for semiprivate rooms, and \$4 to \$8 per day for private rooms.

One venereal disease clinic is operated by the health department, and one clinic is operated by the township trustee. Another organization supervises a dental clinic. One private agency and two governmental agencies arrange or provide medical services. The private agency is supported by Community Chest funds.

Fifty-one schools below the college level have health supervision services. One college has student health services.

### FREE AND PART-PAY MEDICAL CARE

During 1937, the total number of persons reported as having been given free services in the office, home, or hospital by physicians was 1,784 recorded, 1,720 additional estimated, or a total of 3,504. Dentists cared for 285 recorded cases, and 178 additional estimated, or a total of 463. The hours devoted during 1937 to care of free ambulatory patients in outpatient departments, dispensaries, or clinics by physicians was 268, by dentists, 164. (This work was done at the tuberculosis sanatorium, in school examinations, etc.) In two hospitals, pay and part pay hospital patients totalled 3,588, public charges 1,933, and free patients 387. There were 36,256 hospital days for pay and part-pay patients, 15,343 days for public charges,

and 8,347 days for free patients. These hospitals do not maintain out-patient departments. The other two hospitals cared for an additional 5,154 patients (61,443 hospital days), not classified. The township trustee did not supply the desired information as to the clinic conducted by his office.

A total of 36,176 nursing visits were made during 1937, 51.8% of which were made without charge to the patient. Prescriptions compounded by pharmacists during 1937 for which no charge was made numbered 582 (282 definite recorded and 310 estimated). At cost or reduced fees, 1,838 prescriptions were filled (98 definitely recorded, 1,740 estimated).

No patient is refused admittance to hospitals. At times there is personal investigation by an official of the hospital, and indigent cases are referred to the township trustee for investigation. Hospitals do not maintain workers for social investigation.

Welfare and relief agencies have social worker investigation and contact. The welfare board allows one dollar per month for those on old age and blind assistance to be used for medicines. If more is needed, and the need is confirmed by investigation, the case is referred to the township trustee. The same procedure is followed for providing glasses and surgical appliances.

Funds for the payment of medical care for the indigent is obtained from the following sources: township trustee gets funds from township tax-levy; the County Welfare board obtains funds from county, state and federal funds; community chest, philanthropic agencies.

No patients who needed hospital care were refused admittance as bed patients.

During 1937, 225 persons who were not receiving medical care were visited by nurses; in some instances, the patients did not want medical care; only two calls are made on such patients. The nursing service reports no instance where services of a physician could not be secured. During the year, 130 requests were received for nursing services which could not be filled, because no physician was in charge of the case. On the first visit, if no physician is in charge of the case, the nurse advises same; if on the second visit this advice has not been followed, the case is dismissed. These were cases where the financial status of the family was such as to afford a physician's care.

Twenty persons reported to the health department that they were in need of medical care which they were not receiving. This is an estimate by



the county health officer and represents those from a rural population. It is entirely possible that all secured medical services without his knowledge, as he is unable to give definite information on the group.

Of 9,979 pupils in elementary or secondary schools reported during 1937 to be in need of medical care, 6,370 were unable to secure recommended care because, primarily, of a lack of interest on the part of parents. Finances, indifference, and disbelief in the judgment of physicians were other reasons given for failure to secure the recommended attention.

The township trustee has charge of the care of the indigents for which contract-physician system is employed. A community chest project cares for part of the low income group.

The death rate for Allen County in 1937, per 1,000 of population, was 10.6; the birth rate per 1,000 of population was 15.8.

Seven miles is the greatest distance anyone in Allen County would have to travel to reach a physician.

The trustee determines the ability of patients to pay for medical services, through personal investigation and through his hired investigators. City or county and state funds are used in providing medical care for the indigent.

All persons who were in actual need of medical or dental care received it. Many medical and dental cases needing prophylactic care did not receive it because of the number and expense. Of 150 pupils in elementary or secondary schools reported to be in need of medical care, 125 were unable to secure such care for reasons not given.

Thirty-five persons were reported by physicians or dentists as needing services which could not be obtained. Reasons were given as necessity for dental plates or dental care as a prophylactic measure to preserve teeth.

No births were recorded as being unattended by physician or midwife.

There is no arrangement for care of the indigent by the county medical society members. The trustee has a contract with a few physicians who care for such patients in rural townships by personal arrangement between trustee and physician; in Wayne township on contract basis (1937). The arrangement is not favored by the county medical society.

#### MEDICAL CARE OF INDIGENTS IN ALLEN COUNTY\*

The rural townships of Allen County dispense medical care for their relief clients according to the time-honored custom of the Township Trustee making arrangements for the individual family with their physician. This has worked in satisfactory manner inasmuch as the trustee in these localities is personally familiar with the needs and desires of his clients.

\* This information was added after the A.M.A. survey report had been made.

In the more populous Wayne Township, site of the City of Fort Wayne, the medical care of the indigent has been cause for contention for many years, at least since the marked increase in relief load. The previous trustee attempted to solve this problem by contracting with a group of physicians for this care. This contract was carried out over the protest of the Fort Wayne Medical Society. However efficient this arrangement might seem, it failed by a wide margin of producing satisfaction, either on the part of the medical society or on the part of the relief patients.

During the political campaign of 1938 the medical care of the indigent became an issue and the present incumbent of the Trustee's office had as a plank in his platform, "Free Choice of Physician." Pursuant to his election a committee acting for the medical society and for the trustee made a thorough study of the problem as approached in comparable communities. The result was an adoption of a system patterned after the Oakland County (Michigan) plan, although different in some respects.

February first, 1939, was the date set for the initiation of this method of operation and to date, while presenting minor difficulties, it has nevertheless been an improvement on the former method of care. A relief clinic is maintained under the supervision of a society member on a salary. This clinic serves those patients who have no family physician and are ambulatory. It is planned that this will serve the no small number of transients who of themselves present a medical problem. Others are cared for by all the medical society members participating in the program. This care is patterned after normal private practice where there is constant maintenance of the physician-patient relationship. Administration of the medical end of this program is by the Board of Trustees of the society. Compensation is based upon an adopted fee schedule. At the present time 75% of the society membership are actively engaged in this program.

#### MARION COUNTY'S FIGURES

Marion County has a population of 420,255 including the State's capital city with 364,161. The area is served by 818 practicing physicians and 376 practicing dentists. The greatest distance that the nearest physician would have to travel to reach persons in the area is 18 miles.

Of 913 forms sent to physicians and dentists, 510 replies were received. Other replies were received from 8 hospitals, 5 nurses, 2 health departments, 25 welfare agencies, 144 schools, 6 colleges, 54 other organizations, and 52 pharmacists.

Nursing service in the area is cared for by 325 full time private duty nurses, 25 part time private duty nurses and 31 full time public health and visiting nurses.

Marion county has ten hospitals classified as general (4), nervous and mental (1), tuberculosis

(1), maternity (1), and 1 other. (Two refused to complete forms.) There are 2 governmental, 1 nonprofit, and 5 private hospitals. Of the 1,485 available beds, 435 are in private rooms, there are 114 semiprivate rooms, and 49 wards. The average occupancy of beds in 1937 was 76 per cent. Rates are from \$1 to \$3.50 per day in wards to \$3 to \$5 in semiprivate rooms and \$5 to \$15 per day in private rooms. There are 61 outpatient departments or clinics, 44 operated by health departments, 11 by welfare and relief agencies, and 6 by hospitals. Five clinics provide general medical and surgical care; 17 are for maternity and child welfare; 1 cares for nervous and mental cases; 3 provide health examinations; 1 is for venereal diseases; 6 tuberculosis clinics are available; 26 clinics for dental care are operated, and 5 others are in operation, including prenatal care.

There are 15 private agencies and 10 governmental agencies that arrange for or provide medical services. One hundred and forty-four schools below the college level have health supervision services, all under the supervision of the health department. Inspections and examinations are provided, but no medical treatment is given. Three colleges have student health services.

Forty industrial companies in the area have arrangements in the plant for care for their employees; thirteen fraternal organizations arrange for special groups of persons.

Free services in the hospitals were given to 23,464 persons by physicians and 1,371 persons by dentists. Physicians referred 5,264 patients to hospitals for free care, relief and welfare agencies referred 16,844, and other agencies and organizations referred 1,755. Direct applications numbered 11,229. Hospital outpatient departments, clinics, and dispensaries cared for 32,791 patients. The public health nursing association reported 69,075 nursing visits made during 1937, and of these 62.87% were made without charge to the patient.

Pharmacists reported 5,690 prescriptions compounded for which no charge was made, and 3,323 prescriptions compounded at cost or reduced fees. Indigents may obtain medicine through the township trustee, the Board of Health, or the city hospital.

Sources of funds for payment of medical care for the indigent is city or county funds, community chest, philanthropic agencies, and individual donations.

During 1937, 130 patients who needed hospital care were not admitted as bed patients for three reasons: (1) non-resident; (2) financially ineligible; (3) insufficient room.

Number of patients during 1937 who were refused care at outpatient departments was 1,411 for the reasons that upon investigation, applicants were found able to pay, or they were non-residents and not entitled to care from these services.

The health departments report no instances where medical services requested could not be ob-

tained. It is always possible to make arrangements with city hospital or other hospitals. Medical care is available for everybody. The only need is for adult dental service.

In the elementary or secondary schools, 11,000 children were reported to be in need of medical care. Of these, 7,055 did not secure such recommended care because nurses were too busy to follow up cases; the cost of such things as eye glasses, x-rays, etc.; lack of cooperation of physicians with school nurse and physician; and lack of interest of parents in following up examination.

Thirty-five physicians reported instances where medical services could not be obtained for the reason that persons had no reserve for hospital bills, yet their income was such as to make them ineligible for city hospital care. Most of these instances were for dental work, as dentists report there is no place to have adult dental work done free.

In Marion County there are reported to be 8,902 persons during 1937 who were unable to obtain either medical, dental, nursing or hospital care; this number includes the 7,055 students reported to be in need of medical care after school examinations (mentioned above).

The birth rate in Marion county for 1937 was 17.1; the death rate, 14.6. Maternal mortality rate was 4.2, diphtheria mortality rate was 2.6.

Twenty-five pharmacists report an increase in prescriptions in relation to the sale of home remedies or patent or proprietary remedies; 15 reported a decrease, and 12 reported no noticeable change.

The county health department expressed the opinion that every patient in Indianapolis and Marion county is receiving adequate medical care and that facilities are available for such care.

#### JACKSON COUNTY

Jackson County has a population of approximately 24,000.

The secretary of this society reports that in this, as in other communities, the more help there is given to indigents, the more help they ask for. They do not get all the medical attention they request, but as a rule they get all that they need.

Contracts for indigent care with the township trustee is not satisfactory to the indigent, to the trustee, to the public, or to the physicians.

Of 21 physicians and dentists who were sent forms, 18 completed and returned them. Six pharmacists completed the forms sent to them. There are 18 physicians and 8 dentists in the area. The greatest distance the nearest physician would have to travel to reach persons in the area is twelve miles.

Six full time, 2 part time, private duty nurses, and 1 full time public health nurse served the area. One small hospital with 11 private rooms, 12 wards, and 6 maternity rooms was 75% occupied during the year. Rates in the wards are \$2.50



per day and from \$3 to \$4.75 per day in private rooms. There is no outpatient department.

Two health departments—one city and one county—are in operation. Well baby clinics for indigent families, tuberculosis clinics, orthopedic and dental clinics are held once or more during the year—some as many as six times. There are no private or governmental agencies to arrange or provide medical care. Local clubs care for part of such work—trustees care for the remainder. All schools teach health and safety. The public health nurse gives limited service to the schools. Inspection in schools is for communicable disease only and examinations of high school athletic participants. No medical treatment is provided.

During one week of observation, in 1937, 190 persons were given free medical services. Hospital care was given to 125 public charges. No one is referred to the hospital unless a physician recommends it. The tuberculosis association assists in preparation for hospitalization. The township trustee provides medicines for indigents. Sources from which funds are derived for medical care of the indigent include city or county government and the community chest.

#### NEED FOR MEDICAL CARE

No patients were refused admission as bed patients to the hospital when hospital care was needed.

No patients were refused medical service when it was needed.

No record was kept of persons who were not receiving medical care when visited by nurses. Nurses cannot follow up every case to see if the doctor has been obtained. The county nurse says that some reasons for not obtaining medical care are lack of funds, or haven't lived in the township long enough to get help from trustee.

There is, according to the county nurse, need for more nurses for work on educational programs. Services have been restricted through lack of personnel.

The report from this county indicates that all patients who need medical care and applied for it were admitted to the hospital, no instances were reported where medical services could not be obtained, and no person in the area studied was unable to obtain either medical, dental, nursing, or hospital care.

#### PREVENTIVE MEDICAL SERVICES

Every physician in the county does some preventive work gratis. While no definite records are available, it is estimated that the majority of all preschool children are immunized against diphtheria.

The county medical society secretary, in transmitting the forms for this survey, points out that to obtain all the statistical facts requested in these blanks would require a "year's planning and a paid county secretary to follow up and collect the data."

#### PUTNAM COUNTY

Putnam County has a population of 20,500.

Forms sent to 23 physicians and dentists brought 18 replies. Eleven other replies were received from 5 pharmacists, and 1 each from hospital, nurse, health department, welfare and relief agency, school and college.

There are 15 physicians and 8 dentists in active practice. No nursing service is available. One general hospital and one county hospital serve the area. Of 36 available beds, 17 private rooms, 14 semiprivate rooms and one ward had an occupancy for 1937 of only 30% in private rooms, 25% in semiprivate rooms, and 5% in wards. Rates are from \$3 per day in the ward to \$4 and \$5 in private rooms. One tuberculosis clinic is operated in the county. One health department and 13 governmental agencies arrange for or provide medical services.

One school has nurse supervision under the control of the Board of Education. One school provides medical examinations.

During 1937, 215 persons were reported as having been given free services in the office, home or hospital and 47 persons received dental care. Total number of hospital patients was 1,112 not classified as to ability to pay. Medicines for the indigent in this area are supplied by dispensing physicians or prescriptions are paid for by township trustee at regular rates.

All persons in actual need of medical or dental care received such care. Many cases needing prophylactic care did not receive it because of the number and expense.

Children in schools reported to be in need of medical care numbered 150, and of these 125 were unable to secure such recommended care.

Of 35 cases where medical services could not be obtained, the reasons were need of dental plates and dental care—prophylaxis to preserve teeth.

A contract is given to a few physicians by township trustee to supply medical care. This arrangement is not favored by the county medical society.

#### RANDOLPH COUNTY

With a population of 38,000, Randolph County has twenty-five physicians and dentists to whom forms were sent, only seven of which were returned. Of fourteen blanks sent to others (nurses, health departments, organizations), twelve were returned.

This area has eighteen full-time private duty nurses and eight part time nurses; 7 pharmacists; 2 hospitals (one county, one private).

During 1937, the private hospital rooms were 45% occupied; semiprivate 55%; there are no ward accommodations.

The greatest distance that any person would need to travel to reach a physician is twelve miles.

Hospital rates are from \$2.50 per day in semiprivate rooms to \$4 or \$5 per day in private rooms.

*(Concluded on page 164)*

## BIRTH AND DEATH CERTIFICATES TO BE REVISED BY THE INDIANA STATE BOARD OF HEALTH

For the past year the Committee for the Study of Infant and Maternal Mortality of the Indiana State Medical Association, the Bureau of Vital Statistics, and the Bureau of Maternal and Child Health of the Indiana State Board of Health, through the cooperation of the practicing physicians throughout the State of Indiana, have been conducting a study of the causes of deaths of mothers and newborn infants. This study has been an effort on the part of the physicians and those interested agencies to discover means of making childbirth more safe in Indiana. The report covering the first year of the study when completed will be published in the May issue of this JOURNAL.

This study will no doubt show that many of these deaths are preventable. The article will likewise outline the many factors responsible for these deaths, which may be social, environmental, or medical. The Committee likewise reviewed the new standard certificates of births, stillbirths, and deaths, which have been submitted to the State Board of Health by the Bureau of Census in Washington. These new and revised certificates are the official ones from the Bureau of Census for the decade 1940-1949, inclusive. These certificates have been adopted by the Indiana State Board of Health, and will be distributed for use at the earliest possible date.

The tabulation of the information received from these birth and death certificates is essential to every man, woman, and child in the State of Indiana. Their usefulness will be enhanced to each individual if the certificates are properly filed with

the Bureau of Vital Statistics of the Indiana State Board of Health, on the birth of a live infant, a stillborn child, or the death of an individual. These forms are often of extreme value to the citizens, especially when legal settlements are involved. Each person should make it his single duty to see that he has on file his birth certificate. It is likewise important both from a medical and legal standpoint that all deaths be properly recorded.

These revised certificates have been prepared after careful study and recommendations by the following organizations: U. S. Public Health Service, U. S. Children's Bureau, Social Security Board, Navy Department, War Department, Office of Education, the Department of Agriculture, and many other Federal and State agencies.

The Bureau of Vital Statistics of the Indiana State Board of Health makes an appeal to each physician to promptly and completely fill out these certificates and submit them to the local county health officer. It is not only important from a vital statistics standpoint, but to the individual citizen, where often medical and legal problems arise because of the death of an individual, or an individual has occasion to prove that he has been born.

Since the abolishment of the office of the town health officers, it is the duty of the county health officer to collect these certificates and submit them to the Bureau of Vital Statistics of the Indiana State Board of Health. Physicians can greatly assist the county health officer, as well as the State Bureau, by promptly returning these certificates.

## *The Fort Wayne Convention*

OCTOBER 10, 11, AND 12, 1939

### HOBBIES EXHIBIT

A distinct innovation in the form of a hobby exhibit will be introduced at the annual meeting of the Indiana State Medical Association in Fort Wayne next October.

The committee would like to have every Indiana physician who is interested in a hobby of any kind—painting, sculpture, wood carving, etching, photography, books, philately, numismatics, ship model, airplane or engine model building, collecting butterflies or Indian relics, or whatever it may be—to send a representative selection for exhibit purposes.

Other societies have tried this idea, and the enthusiasm it has aroused has been gratifying. The diversified interests which the members have in pursuits outside of their own profession is amazing.

The committee is very anxious to have this exhibit a success, but in order for it to be successful, it is essential that it be a representative exhibit of the medical profession of the state. There are many Indiana physicians who have hobbies, and it is urged that any physician who has anything representative of his hobby to exhibit, please communicate with the chairman of the committee as soon as possible.

All articles or collections exhibited will have the same care and protection as the scientific exhibits.

EUGENE L. BULSON, M.D., Chairman  
406 West Berry Street  
Fort Wayne, Indiana



## STANDARDS FOR MATERNITY HOMES AND MATERNITY HOSPITALS

The Liaison Committee to the Indiana State Board of Health met on January 23 in continuance of their work in assisting the State Department of Public Welfare in preparing standards for maternity homes and maternity hospitals. This large undertaking was started last August by a special sub-committee of the Liaison Committee appointed to carry out this study. The sub-committee is composed of members from the Liaison Committee of the Indiana State Medical Association in cooperation with representatives from the State Division of Dependent Children of the State Department of Public Welfare.

At the January meeting the standards for small general hospitals, home hospitals, and specialized maternity homes were completed, and by recommendation of the Committee have been submitted to the Board of Public Welfare of the State Department of Public Welfare for adoption.

Under the existing laws of the State of Indiana, the inspection and licensing of the above classified hospitals and homes is to be carried out by the Indiana State Department of Public Welfare. The Indiana State Medical Association and the Indiana State Board of Health are cooperating with the State Department of Public Welfare in drafting these rules and regulations in order to incorporate the medical and sanitary features necessary to be included in their regulations.

The members of the Liaison Committee are: E. O. Asher, M.D., New Augusta, Chairman, J. C. Carter, M.D., Indianapolis; R. W. Shanks, M.D., Noblesville; H. O. Bruggeman, M.D., Fort Wayne; J. T. Oliphant, M.D., Farmersburg; and Milo Miller, M.D., South Bend. Others assisting the Committee in preparing these standards were: Miss Mildred Arnold, Director of Children's Division of Indiana State Department of Public Welfare; Carl P. Huber, M.D., Instructor of Post-graduate Instruction, Indiana State Board of Health; Miss Gladys Fraser, Division of Dependent Children of State Department of Public Welfare; Miss Leona Massoth, Indiana University School of Social Service; and Howard B. Mettel, M.D., Chief of Bureau of Maternal and Child-Health of Indiana State Board of Health.

During the coming weeks the Committee is to study the proposed standards and regulations to apply to large general hospitals having maternity services. These standards were to be ready for submitting for adoption by February 15.

IF YOUR DUES ARE NOT PAID YOU  
ARE DELINQUENT NOW!

## UNDER THE CAPITOL DOME

### PROPOSAL FOR ANNUAL RE-REGISTRATION

A legislative proposal for annual re-registration with the state board of medical registration and examination by doctors and all others licensed by the board has been made in the Indiana Senate.

The measure would provide for payment by licensees of a \$2 fee, by July 1 of each year, beginning this year. Failure on the part of a licensee to file for re-registration within ninety days after the first of July would result in automatic suspension and a physician, surgeon or other license holder would be guilty of practicing in violation of the medical practice act while under suspension for failure to renew his license. Provision was made in the bill, however, for reinstatement at any time upon original application and evidence of fitness and payment of re-registration fees in arrears and an additional fee of \$10. Revocation of licenses would result from nonpayment of the re-registration fee for a period of five years.

Money derived from the re-registration fees would be placed in the funds of the medical registration board for carrying out work of the board, and any amounts left over at the close of each fiscal year would be turned over to the state general fund.

It was estimated that at least \$10,000 a year would be collected under provisions of the measure. The bill was introduced by Senators I. Floyd Garrott of Battle Ground and Walter Vermillion of Anderson, members of the state budget committee. The bill was assigned to the committee on public health, of which Senator Thomas A. Hendricks, of Indianapolis, is chairman.

The state board of medical registration and examination gave a practical examination for Illinois doctors seeking admission to practice in Indiana at the Indiana University Medical Center on February 1. Seven candidates took the examination.

A safety survey conducted by engineers of the state highway commission showed that dual lane highways have the lowest percentage of accidents per million vehicular miles traveled, T. A. Dicus, chairman of the commission, reported this month.

According to the survey the state has an average of 1.72 accidents per million vehicular miles on dual lane highways; 2.55 accidents on four lane, undivided roads; 2.75 accidents on three lane highways, and 2.53 accidents per million vehicular miles on two lane highways.

Mr. Dicus said the commission is extending the mileage of dual lane roads in heavily congested areas as rapidly as funds will permit.

Plans for the annual examination of candidates for admission to practice medicine in Indiana are being made by the state board of medical registration and examination. The examination this year will be held June 20 to 22, inclusive, in Indianapolis, but the place where the sessions will be held has not been decided upon.

Miss Ruth V. Kirk, executive secretary of the board, said that a larger class of candidates is anticipated than last year when 130 took the examination.

Dr. J. W. Bowers, of Fort Wayne, secretary of the state board of medical registration and examination, and Miss Ruth V. Kirk, executive secretary, attended the annual congress of State Medical Boards of the United States in Chicago, February 13 and 14.

T. A. Dicus, chairman of the state highway commission, pointed out to Indiana physicians that they may now obtain new 1939 highway maps.

Several major changes have been made in the new map to make it more convenient to handle, easier to read and of greater value, Mr. Dicus said. The size has been decreased; all principal interstate highways are shown in red while roads which do not span the state are shown in dark blue. Mileage between principal points is shown in red figures while the intermediate mileage between towns and road intersections is shown in a smaller blue figure. County borders are outlined in yellow and major county roads are also shown. An effort has been made to show all towns, regardless of size and location. The map also contains other additional and new information of value to motorists. They may be obtained by mail by addressing the Highway Commission, State House Annex, Indianapolis.

## *Voice of the Doctor*

### TWO INDIANA PHYSICIANS TALK OF CALIFORNIA

#### DR. AUSTIN VISITS CALIFORNIA

Los Angeles.

Friday, January 13, 1939.

High lights in the sunshine. Arriving in a pouring rain and trying to keep a five room apartment warm with a one-burner gas heater. . . . After one gets used to it he can keep warm if he sleeps with his socks on. . . . When the rain stopped and the sunshine came out one forgot his yesterdays. . . . Driving to the top of Griffith Park mountain and seeing the myriad lights over the city after nightfall. . . . Standing on a corner and watching eight lines of cars trying to keep out of each other's way while going sixty miles an hour. . . . A Chinese dinner at the Dragon's Den and waited upon by a beautiful Chinese girl speaking perfect English. . . . Rambling around Olivero Street and seeing the last of the old Mexican quarter which the city is retaining as a souvenir of the old days. . . . Window shopping in the Chinese quarter and seeing windows filled with beautiful hand-carved wood and ivory articles. . . . A display of jade ornaments and star sapphires. . . . The beautiful building housing the Yokohama Specie Bank. . . . Dinner with friends in Glendale. . . . Driving with John to the Warner Studio and seeing its acres of buildings. . . . An hour at Central Air Port in Burbank and marveling at the big transcontinental planes arriving and departing. Dropping down as softly as a leaf in the wind and leaving the ground as if gliding up an invisible runway. . . . Almost persuaded to fly to San Diego when another observer remarked

#### DR. CAGGADY'S VIEWS OF CALIFORNIA

February 9, 1939.

The newspapers since December have glibly discussed the state medical society's endorsing a plan for voluntary sickness insurance in California. That is true. The medical society through its council voted to set up a voluntary sickness insurance plan for the entire state. This was done without the membership of the society having a voice in whether they wanted it or not. At least many, if not the majority, of the specialists were very much opposed to it.

The reason given by the president and officers for proposing a voluntary sickness insurance plan, at the medical society meeting in Los Angeles which I attended, was threefold. First: because the state legislature had a bill before it endorsed by the Democratic party, the Governor, the unions and the farm bureau to establish compulsory sickness insurance in California. Second: that the Federal Government would undoubtedly socialize medicine and if the state medical society had a voluntary sickness insurance in force, that it would be possible for the state to control socialized medicine when it became compulsory. Third: that there was a demand from the public for socialization of medicine.

He said that one of the newspaper men who interviewed him was very much in favor of it because a few years before he had a good job at \$400 a month, and a series of sicknesses in his family wiped out his savings and lost him his job.

The proposed plan by the state association is for the state society to incorporate a separate organ-



## DR. AUSTIN VISITS CALIFORNIA—continued

"They are just like Maxwell House Coffee—good to the last drop." . . . Anyway, I get awfully sea sick, so I didn't go. . . . Dinner with friends after a two hour drive through Westwood. And Beverly Hills, where Dr. Stoddard is practicing and Dr. Fattic spends some of his spare time. . . . Grauman's Chinese Theatre with all the stars' footprints imbedded in cement in the foyer in front of the theatre. . . . Dr. George Diven's office and residence on Hollywood Boulevard, within a block of the heart of the city. Drs. Stoddard, Fattic and Diven all formerly of Anderson, Ind. . . . Santa Monica and the Beach drive along the Pacific Palisades. . . . A two lot corner on Wilshire Boulevard in uptown Santa Monica, owned by my neighbor in Anderson, probably worth a thousand dollars a front foot. . . . Dinner in Hollywood with friends from Indianapolis, and meeting there Dr. Strickland and Tom Metzger, both former Hoosiers, Metzger now one of Will Hays' assistants to keep the movies clean. . . . Drive out to Compton to see Dr. Glen Myers. . . . Christmas dinner in the apartment, with friends in for turkey and trimmings. . . . Afternoon with Van Faust and Mrs. Faust at the M.G.M. studios, where Van is music librarian when he isn't doing talent scouting. . . . Heard them recording an orchestra to dub into a picture already taken. Orchestra members get \$10 an hour, looked like a bunch of tramps, and could they play sweet music! . . . The swell looking orchestras one sees in the pictures are mostly extras earning \$15 a day and who look and act as musicians and never make a sound. . . . Filming the Wizard of Oz in technicolor. Saw a purple horse with gold hoofs, and at first thought I must have a hangover. . . . Then when I saw the rest of the set was certain it was the crowd on the set that had the hangover. . . . Sat on a roulette table and watched a bar room scene where Nelson Eddy sat on a bar, surrounded by a bunch of tough hombres, and he sang a new song, "Dead Broke." . . . Some midgets running down an alley, part of one hundred and fifty working on the Wizard of Oz set. . . . A Sunday drive to Palm Springs, up and down into the Desert, where shorts were common dress, and down to Indio, where they are raising dates. . . . Luncheon at the Desert Inn. . . . Then back to Santa Ana over Mount San Jacinto and into a snow storm. . . . John got out and made a snow ball, the first one in five years. . . . A day with Dr. Chapmans, driving to San Juan Capistrano Mission and back along the coast drive through the beautiful seaside resorts with mountains covered with Spanish type homes. . . . Luncheon at Laguna Beach Inn on Emerald Bay. . . . Long Beach and San Pedro, with only one of the Navy battleships left in the harbor. . . . A day with Dr. Strickland driving to Riverside and luncheon at the famous Mission Inn. . . . Large

## DR. CASSADY'S VIEWS—continued

ization with twenty to thirty physicians on the Board of Directors, and perhaps ten laymen on this Board to manage the plan. The details have not been worked out, but in effect, it will be a prepayment voluntary sickness insurance which will be complete coverage for the policy holder of medical care and hospitalization. It is thought that \$2.25 a month would be the premium. To get a large number insured it would not be limited to the low income group (\$70 to \$100 a month) as they could not afford it, but that incomes up to \$5000 a year would be the ceiling. By having a large number insured, approximately 500,000, it would not interfere with the prevailing fee schedules, and the private practice of medicine would continue as it had been with the exception that the physicians would be paid from the insurance company monthly. The fees as they now exist would be called so many units, and the existing fee schedule would be maintained in the unit payment to physicians.

It is anticipated that people would demand more care and that the excessive charges for extras which they do not have would lower the unit. The organization expense was estimated at ten per cent, hospitalization at twenty to thirty per cent.

This medical society meeting in Los Angeles was a very spirited affair. There was so much exception to the plan by the members of the Los Angeles medical society, the society members packed the auditorium and continued to voice their objections and questions, until it nearly was a riot. The discussion was finally stopped by the introduction of a guest speaker, Prof. Dohlman, of Lund, Sweden.

Several other voluntary sickness insurance plans are in effect in California. In San Francisco, the city employees have sickness insurance, but many of the physicians there are opposed to it. It is paid on a unit basis, but the members demand so much more medical care than if they paid directly for each unit that it lowers the worth of the unit. The public as well as the doctors abuse the privileges by having as much medical care as they want. A letter was sent out with these listed as some of the abuses: 18 calls for scarlet fever in one month; 20 calls for conjunctivitis in one month. Newspapers published this.

The Ross-Loos Clinic insures their members for \$2.50 a month in groups but have complete histories and physical examination before the applicant will be accepted for a policy. The teachers, water works department employees, and other large groups are insured with this clinic.

The dependents of a policy holder may have office calls for fifty cents and house calls for one dollar. They pay for surgery, major \$25.00, minor \$12.50 with hospitalization extra. Drugs, x-rays and accessories are extra. This group have eight offices in different parts of Los Angeles and suburbs with two doctors, nurse and book-

(Continued next page)

## DR. AUSTIN VISITS CALIFORNIA—concluded

naval oranges at roadside stands 10 cents a dozen, and all the orange juice you can drink for a dime. . . . Back through Pasadena to pick up two tickets in the grand stand to see the New Year's Day Flower Parade. . . . Shirley Temple on a big float, sitting in the midst of a blanket of six thousand white roses. . . . Her Guard of Honor a dozen deputy sheriffs riding beautiful horses and wearing old Spanish Cabarillo costumes. . . . Leo Carillo galloping up to the grand stand and waving his sombrero, stopped and asked for three cheers for the best country on earth, the United States of America. . . . More beautiful horses and more of the most elaborate harness and silver trappings than I ever thought were in the world. . . . Sixty floats, many decorated with as many as ten thousand flowers and costing ten thousand dollars. . . . Luncheon at the Pig and Whistle. . . . The biggest crowd I ever was in, estimated at a million and a half, to see the parade and the Duke-California football game. . . . An evening at the Theatre Mart to see *The Drunkard*, a "mellerdrama" of the time of P. T. Barnum. . . . Free beer and pretzels served during the performance, with coffee, ginger ale, root beer and cakes, if you preferred. . . . A riot of laughter for two and a half hours and the house was filled for the 2,018th performance. . . . The longest run of any show on record, over six years. . . . A drive to Santa Barbara along the coast drive and back through the mountains. . . . The Ambassador Hotel and Cocoanut Grove dining room, where Rudy Vallee draws the crowds. . . . Biltmore Hotel for afternoon tea at the cocktail hour. . . . Bullock's swanky store on Wilshire Boulevard. . . . Luncheon with Dr. Tepper at the Mayfair Hotel. Dr. Tepper is surgeon for the Ross Loos Medical group, which now has sixty-four physicians caring for 19,000 employed subscribers, paying \$2.50 a month for *their own* medical, surgical and hospital care. The dependents of the subscribers (forty thousand in number) furnished the same service on a minimum fee basis. . . . An interview with one of the staff at the Cedars of Lebanon Hospital, whose patients are not classed as indigents. . . . Interview with Dr. Ruddick, chairman of the State Medical Post Graduate Committee, who gave me an hour's time, telling me of its ups and downs. . . . Two hours with the secretary of the Los Angeles County Medical Society, learning all I could about the State plan for prepayment for medical service, which is as yet mostly plans and theories. . . . An interesting hour with a doctor supplying services to a medical benefit club whose members pay "four bits" a week. He sees an average of seventy-five people a day. . . . Gave a dozen patients two minutes apiece while I was with him. . . . Has two nurses and a medical student prescribe for the majority, without bothering him. . . . Went into a fancy-looking Medical Building in

(Concluded next column)

## DR. CASSADY'S VIEWS—concluded

keeper at each office. House calls are made from here and also office visits except when they need a specialist. The specialists, x-ray and minor operating rooms are in a downtown Los Angeles building. The doctors work from 9:00 a.m. to 5:00 p.m. and see from fifty to seventy-five patients a day. The physicians in the outlying districts get \$250.00 a month. The specialists get \$300.00 a month for five years and then \$350 a month.

Usually the doctors don't stay more than a few years as there is no future. One very competent obstetrician was there six years and was getting \$350 a month when he quit. Opportunity is provided for a private practice at this office, for which the clinic takes fifty per cent and the doctor gets fifty per cent; but this is not very extensive as most private patients are not willing to take their turn in such a large practice.

In a brief way, I have tried to mention some of the high lights in California's medical organization. It is, of course, impossible to cover all phases of it. These facts and figures are obtained from sources that I believe are reliable, but I cannot vouch for their accuracy. I hope they will be of interest to the membership and help them to appreciate that Indiana practice of medicine is, if not better, at least more secure.

J. V. CASSADY, M.D.,  
South Bend.

## Dr. Austin—conclusion

Hollywood, and there were nine chiropractors, one naturopath, one dentist, and one M.D. (oculist) in the building. . . . More quacks and medical fakers here than any place on earth. . . . Frank McCoy, the advertising diet specialist, has a palatial home and offices two blocks from our apartment. . . . Clifton's Cafeteria, where the waiters and waitresses take time to sing hymns. . . . Aimee Semple McPherson on top of her Auditorium, burning mortgages on her property. . . . Old Baldy Mountain, east of the city, whose top is covered with snow. . . . Orange and lemon groves full of green and golden fruit. . . . The vista of Hollywood and mountains back of the town from a high point in Beverly Boulevard. . . . uncanny character delineation by "Marion" at the Wishing Well, from two lines of your handwriting. . . . The Processional at the beginning of services at the First Congregational Church. Its marvelous vested choir of two hundred voices. And Dr. Fifield's sermon of fifteen minutes. . . . Luccas Restaurant, a gourmet's paradise. . . . And the peculiar feeling that some of us have, that all this is artificial and so far from reality with most of us in our daily lives that it makes us appreciate all the more our own house by the side of the road in Indiana.

M. A. AUSTIN, M.D.,  
Anderson.



## Deaths

JAMES O. PARRAMORE, M.D., of Crown Point, superintendent of the Lake County Tuberculosis Sanitarium and nationally recognized for his work in his specialty, died in a Chicago hospital, January twenty-fourth, as the result of a brain tumor. Dr. Parramore was forty-nine years of age. He had been superintendent of the Lake county sanitarium since its opening in 1925. Always active in medical organization work, Dr. Parramore was president-elect of the Lake County Medical Society at the time of his death, and was chairman of the society's executive council.

During the World War, Dr. Parramore served as a captain in the medical corps and saw service on the front lines. Following the war he practiced in Rochester, New York, and continued the study of his specialty until he came to the Lake County sanitarium.

Dr. Parramore was a member of the Lake County Medical Society, the Indiana State Medical Association, the American Medical Association, and a Fellow of the American College of Physicians, and several organizations concerned with tuberculosis. He graduated from the Medical College of Virginia, Richmond, in 1914. Dr. Parramore is survived by his wife, Dr. Grace Ryan Parramore, and two children, James and Mary.

JOHN S. WOOLERY, M.D., of Bedford, aged thirty-three years, died February third in an Indianapolis hospital as the result of injuries received in an automobile accident. Graduated in 1933 from the Indiana University School of Medicine, Dr. Woolery located in Bedford in 1935. He was appointed county health officer in October of 1938, and continued in that capacity until his death. He was vice-president of the Lawrence County Medical Society in 1938 and was a member of the Indiana State Medical Association and a Fellow of the American Medical Association.

AMOS H. CAFFEE, M.D., of Terre Haute, died February first, aged seventy-four years. At the time of his death, Dr. Caffee was secretary of the Terre Haute board of health, a position he had held under two former mayors. He graduated from the Central College of Physicians and Surgeons, Indianapolis, in 1900, and first practiced in Hymera. He had practiced in Terre Haute for thirty-two years. He was a member of the Vigo County Medical Society, the Indiana State Medical Association and a Fellow of the American Medical Association. He served during the World War as a captain in the medical corps.

CHARLES A. PADDOCK, M.D., of Portland, died January seventeenth, aged sixty-four years. Dr.

Paddock graduated from the Physio-Medical College of Indiana, Indianapolis, in 1901. For eight years he served as mayor of Portland.

LOUIS SEVERIN, M.D., of Bluffton, committed suicide, January 23. Dr. Severin was sixty-eight years old. He graduated from the Miami Medical College, Cincinnati, in 1899.

RALPH LE MASTER, M.D., of Marion, prominent physician and civic leader, was found dead in his office, February third. Dr. Le Master was thirty-six years old. Dr. Le Master graduated from Rush Medical College, Chicago, in 1930. He was serving as secretary-treasurer for the Grant County Medical Society at the time of his death, and was a member of the Indiana State Medical Association and the American Medical Association.

CHARLES L. BADGER, M.D., Indianapolis, died February sixth, aged sixty years. Dr. Badger graduated from the Indiana University School of Medicine, Indianapolis, in 1911.

CLARENCE KELSAY, M.D., of Evansville, died February 10. Dr. Kelsay had retired from his practice to enter the manufacturing business. He was sixty-two years old. He was a graduate of the University of Pennsylvania School of Medicine, Philadelphia, in 1898.

JOHN W. COOPER, M.D., aged eighty years, Indianapolis, died January twenty-third. Dr. Cooper graduated from the Physio-Medical College of Indiana, Indianapolis, in 1884, and was a member of the Marion County Medical Society, the Indiana State Medical Association, and the American Medical Association. Dr. Cooper had practiced in Tipton county fifty-three years, and had gone to Indianapolis a few months before his death.

SHELDON S. DE LANCEY, M.D., of Williamsport, died February seventh, after a long illness. Dr. De Lancey was seventy-eight years old. He graduated from Hahnemann Medical College and Hospital, Chicago, in 1882. After practicing in several places in Illinois, Dr. De Lancey located in Williamsport in 1894, where he remained. He had served as secretary of the board of health of Warren county and was a member of the Fountain-Warren County Medical Society, the Indiana State Medical Association and the American Medical Association.

CHARLES D. RYAN, M.D., for many years a physician at the U.S. Veterans' Hospital in Indianapolis, died February eighth. Dr. Ryan was sixty-one years old. He graduated from the Kentucky School of Medicine, Louisville, in 1903, and was a member of the Indianapolis Medical Society, the Indiana State Medical Association, and the American Medical Association.

## News Notes

Dr. James A. Duggan of South Bend and Miss Rosetta Taylor of Bronson, Michigan, were married February seventh.

Dr. Philip Becker has been appointed superintendent of the Lake County Tuberculosis Sanitarium to fill the vacancy created by the death of Dr. James O. Parramore.

Dr. Ernst Oppenheimer, of Evansville, has been added to the medical staff of the Logansport State Hospital as a resident physician.

Dr. Charles Aucreman, of Montpelier, has moved to Muscatine, Iowa, where he will practice.

Dr. Harry A. Silvian, of Whiting, and Miss Henrietta Yalowitz, of Chicago, were married February fourth.

Dr. T. J. McKean, of Montpelier, has been appointed Blackford county health officer to complete the unexpired term of the late Dr. E. D. Shadday.

Dr. Claude Dollens, of Oolitic, has been named health officer of Lawrence county to succeed the late Dr. John S. Woolery.

The Owen County Medical Society has reported that, in its recent immunization campaign, 672 diphtheria immunizations and 197 smallpox vaccinations have been done.

Dr. William Hughes, son of Dr. and Mrs. W. F. Hughes, of Indianapolis, has received an appointment as resident for two years in the Wilmer Eye Hospital, Baltimore.

Dr. and Mrs. R. M. Copeland, of Vevay, are spending the winter in Leesburg, Florida. During Dr. Copeland's absence, Dr. George W. Copeland will serve as secretary for the Switzerland County Medical Society.

Dr. Ida L. Eby has announced that she has moved from Plymouth to Goshen, where she will

continue her practice of ophthalmology and otolaryngology. She has purchased the practice of her brother, Dr. H. W. Eby, of Goshen.

Dr. Morris Fishbein of Chicago talked before the Anderson branch of the American Association of University Women, February eighth, on the subject of "Medicine and the Changing Social Order."

Twelve physicians have been named to a staff emeritus by the Evansville Deaconess hospital. The physicians, guests of honor at a dinner meeting February twenty-first, are: Drs. W. H. Coleman, Earl Conover, George Dunlevy, William H. Field, C. B. Harpole, Charles Hartloff, Bleeker Knapp, W. E. McCool, H. Nenneker, M. Ravdin, O. C. Stevens, and W. P. Woods. February twenty-first also was the occasion of the hospital's forty-seventh anniversary.

A series of radio broadcasts were given over Station WGL in Fort Wayne in January as a part of the National Health Week program. Dr. Eugene L. Bulson discussed "The Relation of Venereal Disease to the Eyes as a Cause of Blindness" as one of the talks on the series.

A postgraduate seminar for nurses was held at the Indianapolis Methodist Hospital in January. The sessions are for nurses registered in the hospital's graduate nurse service division, and are to continue bi-weekly until April twenty-first. The seminar is under the direction of the committee on nursing of the medical staff, assisted by the alumnae association and the faculty of the school of nursing.

Dr. E. J. Kalal has taken over his duties as physician at the Indiana Reformatory at Pendleton. Dr. Kalal formerly was connected with the State School for Feeble-Minded Youths at Fort Wayne. Dr. J. L. Allen of Greenfield is assistant physician at the reformatory.

The fourth annual postgraduate institute of the Philadelphia County Medical Society will be held in the Bellevue-Stratford Hotel, Philadelphia, during the week beginning March 13, 1939. The subjects to be considered are those included in the terms "Blood Dyscrasias" and "Metabolic Disorders." These will be subdivided into eighty-six clinical lectures. Further information may be obtained by addressing the Society, 21st and Spruce Streets, Philadelphia.



The Philadelphia Academy of Surgery offers the Samuel D. Gross prize of fifteen hundred dollars for the best original essay, not exceeding 150 printed pages, octavo, in length, illustrative of some subject in surgical pathology or surgical practice founded upon original investigations. The candidates for the prize must be American citizens. Essays will be received in competition until January 1, 1940. Complete information in regard to the competition may be obtained from trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, c/o College of Physicians, 19 S. 22nd Street, Philadelphia.

Construction will be started immediately on two additional laboratory buildings and living quarters for 14 of the medical officers and their families at the National Institute of Health near Bethesda, Maryland. With the completion of these two new laboratory buildings and the National Cancer Institute Building which was started last November, Dr. Thompson said that facilities will be available at the Bethesda center for about 600 scientific investigators, laboratory technicians, and research workers. The Institute is concerned with public health problems ranging from the control of serums and vaccines to determining the number of hours which bus and truck drivers can work without suffering undue fatigue.

#### INDIANA ASSOCIATION OF HISTORY OF MEDICINE ORGANIZED

A group of twenty-one interested persons attended a meeting February fifteenth in the library of Eli Lilly and Company, Indianapolis, and voted to form an organization to be known as the Indiana Association of the History of Medicine. Dr. William N. Wishard, Jr., read a paper on the life of Edward Jenner. Officers were elected: Dr. Edgar F. Kiser, president; Mrs. Irene Strieby, secretary.

The next meeting will be held May seventeenth, at the same place. Any one who is interested will be welcome to attend, and may communicate with the secretary, Mrs. Irene Strieby, c/o Library, Eli Lilly and Company, Indianapolis.

It is planned to hold quarterly meetings. Annual dues are one dollar. The organization has applied for membership in the national organization, the American Association of the History of Medicine.

#### NORTHWEST REGIONAL CONFERENCE

The Northwest Regional Conference held its annual meeting at the Palmer House, Chicago, on Sunday, February twelfth, with the following Indiana physicians in attendance:

Herman M. Baker, Evansville; Neal E. Baxter, Bloomington; Norman Beatty, Indianapolis; D. F. Cameron, Fort Wayne; Davis S. Coombs; D. A. Covalt, Muncie; George Dillinger, French Lick;

L. P. Harshman, Fort Wayne; L. G. Montgomery, Muncie; Karl Ruddell, Indianapolis; J. C. Silvers, Muncie; E. M. Van Buskirk, Fort Wayne; R. L. Sensenich, South Bend; J. V. Cassady, South Bend; J. William Wright, Indianapolis; H. K. Ward, Coalmont, and Mr. R. W. Waterson, secretary for the Lake County Medical Society, and Mr. Thomas A. Hendricks, executive secretary for the Indiana State Association.

One of the high points of the meeting was the illustrated talk by Drs. Donald A. Covalt, J. C. Silvers, and L. G. Montgomery, all of Muncie, on "Middletown Modernizes Medicine." In addition to lantern slide illustrations, a small size model of the exhibit to be presented at the next American Medical Association meeting was shown.

This year's president for the conference was Dr. Carl F. Vohs of St. Louis. President for 1940 will be Dr. L. Fernald Foster, Bay City, Michigan, and the Michigan State Medical Society will be host for next year's Regional Conference.

The National Safety Council advises the following "common sense rules" of safety:

1. Obey the traffic signals and traffic laws—on foot as well as at the wheel.
2. When you have to reach, reach for a ladder instead of a chair.
3. In case of fire, even if it's only a blaze in the wastebasket, always call the fire department.
4. Be careful in the bathroom; wet surfaces are slippery.
5. Beware of worn or defective electric wiring.
6. Be careful with gas jets not in use.
7. When it's icy or slippery, take short steps.
8. When you're on the stairs, watch your step.
9. The bigger the rush, the greater the danger—*take your time*.
10. Preach safety to others, today, tomorrow, always.

#### CANCER CONTROL

The Women's Field Army of the American Society for the Control of Cancer is organized with sub-divisions that are similar to the State Medical Association. There is a state commander, and serving with her is a vice-commander for each councilor district. A captain of the Field Army will be appointed for each county and there will be a lieutenant for each county sub-division (town or township). District councilors and county society secretaries are requested to cooperate with these officers in carrying on the Field Army work, which is chiefly that of promoting lay education concerning cancer and raising funds. Meetings, speakers, etc., should have the approval of local medical societies. Questions should be directed to "The Committee for the Control of Cancer" in care of the headquarters office of the Indiana State Medical Association, 1021 Hume-Mansur Bldg., Indianapolis.

CHESTER A. STAYTON, M.D., Chairman,  
Committee on Control of Cancer.

# EXAMINATIONS AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

Application for admission to the Group A, May, 1939, Board examinations must be on file in the secretary's office not later than March 15, 1939. Application blanks and complete information may be obtained from the secretary, Dr. Paul Titus, 1015 Highland Building, Pittsburgh, Pa.

## U. S. NAVY INTERNSHIPS

The Medical Corps of the United States Navy offers a number of internships and commissions to graduates of Class "A" medical schools who have completed or are about to complete an internship in a civilian hospital. Examinations will begin on May 8th, 1939, and applications should be on file at least one month prior to that date. Qualified candidates who have completed internships in civilian hospitals and who successfully pass the competitive examination will be commissioned as Assistant Surgeons with the rank of lieutenant (junior grade) and assigned to the Naval Medical School, Washington, D.C., for a postgraduate course of instruction prior to their assignment to sea or foreign shore duty. Candidates must be United States citizens between the ages of 21 and 32 years at the time of appointment, and pass a physical and professional examination. Further particulars may be obtained from The Bureau of Medicine and Surgery, Navy Department, Washington, D.C.

## SECTIONAL MEETING OF AMERICAN COLLEGE OF SURGEONS

A Sectional meeting of the American College of Surgeons will be held in Indianapolis, with headquarters at the Claypool Hotel, on March 22, 23, and 24, 1939. Indiana, Illinois, Michigan, Ohio, Wisconsin, and Iowa will be the participating states. Officers of the local committee on arrangements are Dr. C. H. McCaskey, chairman, Dr. C. A. Nafe, vice-chairman, Dr. J. K. Berman, secretary.

Registration will begin at eight o'clock each morning and will be followed by operative and non-operative clinics, hospital conferences, panel discussions, inspection and study of exhibits, clinical assemblies, medical motion pictures, and special meetings, with each day's program closing at 10:00 p.m. On Friday evening, March 24, there will be a public meeting.

A number of distinguished visiting surgeons will be present from various parts of the country and will address the sessions. Among these are: Dr. Howard C. Naffziger of San Francisco, president of the American College of Surgeons; Dr. George Crile of Cleveland, chairman of the Board of Regents; Dr. Frank E. Adair, New York; Dr. Frederic W. Bancroft, New York; and Dr. George H. Gardner, Chicago.

Panel discussions have been scheduled to include the subjects of "End Results in Gall Bladder Surgery," "Evaluation of Cancer Therapies,"

"Some Phases of Thoracic Surgery," "Reduction in Mortality of Appendicitis," "Hypertension and Its Surgical Aspects," "Abnormal Uterine Bleeding," "Effects of Obstruction in the Urinary System on Infection," "Toxemias of Pregnancy with Special Consideration of Their Ultimate Effects on the Patient," and "Medical and Surgical Aspects of Peptic Ulcer with Special Reference to Hemorrhage."

Graduate training for surgery and the surgical specialties will be discussed at both the hospital and surgical sessions.

The medical profession at large, as well as hospital trustees, superintendents, nurses, and other hospital department personnel, will be interested in this meeting, at which there will be no registration charge. *Members of the Indiana State Medical Association are cordially invited to attend.*

## PHYSICIANS' ART ASSOCIATION

The American Physicians' Art Association composed of members in the United States, Canada, and Hawaii, will hold its second Art Exhibit in the City Art Museum of St. Louis, May 14-20, 1939, during the annual session of the American Medical Association. Art pieces will be accepted for this art show in the following classifications: (1) oils both (a) portrait and (b) landscape; (2) water colors; (3) sculpture; (4) photographic art; (5) etchings; (6) ceramics; (7) pastels; (8) charcoal drawings; (9) book-binding; (10) wood carving; (11) metal work (jewelry). Practically all pieces sent in will be accepted. There will be over 60 valuable prize awards. For details of membership in this Association and rules of the Exhibit, kindly write to Max Thorek, M.D., Sec'y., 850 Irving Park Blvd., Chicago, Ill., or F. H. Redewill, M.D., Pres., 521-536 Flood Bldg., San Francisco, Calif.

## BUREAU OF COMMUNICABLE DISEASE

### Monthly Report, December, 1938

DISEASES	Dec. 1938	Nov. 1938	Oct. 1938	Dec. 1937	Dec. 1936
Tuberculosis .....	202	137	167	126	117
Chickenpox .....	492	275	82	260	520
Measles .....	53	37	33	292	42
Scarlet Fever .....	765	495	496	666	649
Smallpox .....	182	44	29	219	12
Typhoid Fever .....	13	14	27	8	8
Whooping Cough .....	66	48	107	75	152
Diphtheria .....	108	98	165	113	91
Influenza .....	73	39	62	193	205
Pneumonia .....	107	60	78	100	104
Mumps .....	137	104	29	8	51
Polioomyelitis .....	0	0	6	1	0
Meningitis .....	5	4	4	2	14
Undulant Fever .....	5	8	3	5	0
Encephalitis .....	1	0	1	0	0
Tularemia .....	111	8	0	28	13
Ophthalmia Neonatorum .....	1	0	0	0	0
Silicosis .....	2	0	0	1	0



## SOCIETIES AND INSTITUTIONS

### INDIANA STATE MEDICAL ASSOCIATION THE COUNCIL

The annual midwinter meeting of the Council of the Indiana State Medical Association was called to order by Dr. M. A. Austin, of Anderson, chairman, at 10:45 a.m., Sunday, January 29, 1939, in parlors B and C of the Indianapolis Athletic Club, Indianapolis. Roll call showed 100 per cent attendance, as follows:

#### Members of the Council:

First District	—I. C. Barclay, Evansville
Second District	—H. C. Wadsworth, Washington
Third District	—W. H. Garner, New Albany
Fourth District	—M. C. McKain, Columbus
Fifth District	—O. O. Alexander, Terre Haute
Sixth District	—Samuel Kennedy, Shelbyville
Seventh District	—C. J. Clark, Indianapolis
Eighth District	—M. A. Austin, Anderson
Ninth District	—F. T. Romberger, Lafayette
Tenth District	—James M. White, Gary
	—N. K. Forster, Hammond, retiring councilor
Eleventh District	—Ira Perry, North Manchester
Twelfth District	—A. J. Sparks, Fort Wayne
Thirteenth District	—Alfred Ellison, South Bend

#### Officers:

Herman M. Baker, president 1938  
E. M. VanBuskirk, president 1939  
Karl R. Ruddell, president-elect  
A. F. Weyerbacher, treasurer  
E. M. Shanklin, editor of THE JOURNAL  
T. A. Hendricks, executive secretary  
It was taken by consent that the reading of the minutes of the October, 1938, meetings of the Council, held in Indianapolis, be dispensed with as these minutes were approved as printed in the November JOURNAL.

#### Reports of Councilors by Districts

Reports of the councilors by districts showed that medical organization in each district is in good condition. District meetings were reported scheduled as follows for 1939:

First District	Not set
Second District	Bloomington, May 24, 1939
Third District	Huntingburg, May 3, 1939
Fourth District	Columbus, May 25, 1939
Fifth District	Not set
Sixth District	Connersville, May —, 1939
Seventh District	Martinsville, —
Eighth District	Not set
Ninth District	Lebanon, May 11, 1939
Tenth District	Whiting, —
Eleventh District	Peru, May 10, 1939
Twelfth District	Not set
Thirteenth District	LaPorte, —

Councilors were urged to report the dates of their district meetings as soon as possible if they have not already done so.

Attention was called to the dates of the American Medical Association meeting in St. Louis, May 15 to May 19, 1939, and to the state postgraduate meeting, April 10 to 15, 1939, and the fact that district meetings should not conflict with each other or with the national meeting and the state graduate education course.

The Farm Security program was the subject of much discussion, the councilors agreeing that this is a problem which must be worked out locally by the various county medical societies with the Farm Security Administration officials, and that it is the privilege of each county medical society to accept or reject the Farm Security Administration's plan.

**First District—Barclay.** Activities of note in the First District recently are as follows:

1. The Vanderburgh County Medical Association has been considering the advisability of a full-time lay secretary. The consensus was to proceed rather slowly, starting out with a part-time lay secretary. The duties of this secretary are to be gradually increased and it is hoped that in the near future full-time employment may be offered.

2. The Vanderburgh County Medical Society has been approached informally by both the Warrick County and the Posey County Medical Societies through the councilor of the First District in regard to forming a joint society. However, both Warrick and Posey counties are eager to

retain their own delegates to the State Association meeting.

3. On the evening of January 25, 1939, the Councilor of the First District accompanied Dr. F. V. Meriwether and Mr. Davison of the Farm Security Administration to Boonville, Indiana, where the proposed program for medical care for Farm Administration clients was explained. By a vote of the Warrick County Medical Society the proposition was turned down, at least temporarily. This is the first county in the state to turn this down. It is planned to present the program next before the Posey County Medical Society.

(The formation of a joint society by the Vanderburgh, Warrick and Posey County Medical Societies without Warrick and Posey counties losing their identity and delegates to the state meeting as separate societies was discussed by Drs. Barclay, Wadsworth, Austin and Clark. It was suggested that Warrick and Posey counties retain their identity as individual societies by meeting once a year for the purpose of electing officers and then voting to hold their scientific sessions in conjunction with the Vanderburgh County Medical Society. In this way the county organizations will be maintained and they will be entitled to their own state delegates and yet have the advantage of being associated scientifically with the Vanderburgh Society. Dr. Barclay accepted this suggestion as an ideal solution of this matter. Dr. Baker brought out the point that these societies also wished to avail themselves of the services of the full-time secretary who is to be employed by the Vanderburgh County Medical Society. It was thought that a satisfactory arrangement could be made in this regard.)

**Second District—Wadsworth.** Since the October meeting I, as councilor, have contacted the major number of societies in my district relative to the increased dues. At the meetings that I have attended where this question has come up the counties have voiced and voted their confidence in the State Medical Society. Whatever the State Medical Society does, the counties will back it up in the matter of increase in dues. One county voiced its disapproval of this increase by letter to me. I have not contacted this society but will do so before the next state meeting.

On January 24, 1939, Meriwether of the Farm Security Administration met with the Daviess-Martin Society and laid before them the matter of caring for these rehabilitated farmers according to the scheme worked out by the Executive Committee of the State Association and approved apparently by our State Society. This was accepted by the Daviess-Martin Society and an attempt will be made to cooperate with the Government as the State Society advises during the next year.

**Third District—Garner.** Doctors are skeptical of more Government interference. The two counties with which I have taken up the problem of Farm Security have turned it down. I agree with them, too. I believe we had better go ahead and take care of these people as we have done in the past.

**Dr. Wadsworth:** What are you going to do if the Public Health Service locates a man down there to take care of them?

**Dr. Garner:** We have had one of those district health officers placed in our district. Personally, he is a very likable man and is a member of our Medical Society but he was placed here without anyone's approval. He has tried to work out his problems in accordance with the Medical Society. The only complaint has come from some of the doctors in Harrison county where the health nurse in her program of prenatal care and her advice to patients has made some very unkind remarks about some good physicians. She has stated to mothers that certain doctors are "has beens". Knowing these physicians personally, I can understand why they feel as badly as they do. I feel that Dr. Meriwether's proposition on the Farm Security was turned down because of the attitude the doctors had formed of the public health nurse and they were not willing to try out further experiments.

**Fourth District—McKain.** In regard to the Farm Security matter, our county turned it down.

**Fifth District—Alexander.** I have nothing special to report.

**Sixth District—Kennedy.** Dr. Meriwether and a man from LaFayette were to see me two or three weeks ago and I have made arrangements to meet with them February 14. . . . Big resettlement program on in Franklin county. . . . So far people have been going to any

doctor they wanted to and the Government has been paying the bill. Otherwise I have nothing new to report.

**Seventh District—Clark.** Regarding the raise in dues, at the district meeting the members voted that whatever raise in dues was deemed necessary they will approve. That was the consensus of opinion then. One other matter—it seems to me that our profession has been scooped a little bit by lay publications. A few weeks ago *Collier's* had a very fine article on the new drug for pneumonia, sulfapyridine. Up to the present time there has been no effort on the part of the profession to let the people know about this new drug. I think the Council should recommend to the Publicity Committee that they contact the Clinical Investigating Department at the City Hospital to give through the Publicity Bureau some preliminary statement regarding sulfapyridine. The newspapers will give us ample publicity on this.

(Dr. Clark's suggestion regarding publicizing sulfapyridine was discussed by several members of the Council but no definite action was taken by the Council.)

**Eighth District—Austin.** We have had some most interesting meetings in the Eighth District, and I think the Delaware-Blackford County Medical Society will have made history in their program. . . . Delaware-Blackford and Randolph County Societies both have voted to follow any suggestions proposed by the State Association in regard to increase in state dues.

**Ninth District—Romberger.** Since our last meeting in October there have been a number of very highly interesting and intriguing subjects to discuss with the medical societies of my district. The members of my district have their feet pretty solidly on the ground in regard to medical practice. They take a rather open viewpoint to all of these things we call socialized medicine. Dr. Meriwether put this problem up to the societies in a very attractive form. I have a very open mind as to the advisability of this Council or the Indiana State Medical Association endorsing it or forcing it on any one society. They have selected Benton County in my district on which to try this guinea pig experiment. They are going to supervise it in every detail. Let's play ball with Meriwether. That's all right. Let's go that far. My district is wholeheartedly back of the State Medical Association and the Council in regard to the matter of increase in dues.

**Tenth District—White.** Quite a lot going on in our district. In Lake county, Doctor Shanklin, who was our secretary for 25 years, served us notice and the question of a full-time lay secretary was brought up. We selected a committee of eleven who went into the subject to some extent and hired a full-time lay secretary, a Mr. Water-son, who formerly had been a public relations man for one of the department stores in Whiting. Our dues were raised to \$40 a year, with almost no opposition. . . . In Porter county they have broken the ground for a county hospital. . . . Dr. Meriwether also called on me and announced that they had selected Jasper county in my district in which to try their experiment. Inas-much as Jasper and Newton counties have a joint society, I suggested that this be taken up with both counties and their officers. I don't know what their reaction will be. I understand Jasper county has quite a heavy load of these so-called clients.

**Eleventh District—Perry.** Carroll county has been selected as the dumping ground for this Farm Security proposition in our district. As councilor I expect to appear at any time before any county society and my personal opinion will be given that the thing won't work, and that is going to be my attitude. It is my opinion that the councilor should appear when these things come up and discuss them. Tell the societies what you think. Every time we accept one of these things we are shipping a little bit. I don't think it should be the sense of this Council that we should accept this thing wholeheartedly.

**Twelfth District—Sparks.** Two counties in our district have been selected for consideration of this Farm Security plan. . . . I have communicated with all of the societies regarding the raise in dues, and I have letters from some of the societies in which they state they have unanimously voted to raise dues if the State Association thinks it is necessary.

**Thirteenth District—Elison.** It has been interesting to me to hear some of the ideas expressed about the Farm Security Administration program. This plan was instituted in Starke county where there are only five physi-cians, almost an entirely rural county. You can see how the consideration of this program does mean something to the doctors in a county of that type where there are

something over one hundred of these clients. The admin-istrator of this program believes that the average amount allowed for this service will be about \$25 per family which would mean about \$2500 for these doctors. So these five physicians decided to sign up, and it will be interesting to see how it works out.

We are devoted to the idea of having our meetings in first one community and then in another.

Regarding the matter of dues, Dr. Christophel has been very kind in helping to initiate me in this new job and he has gone about with me. Everyone is perfectly willing to do what should be done but they ask these questions: "What is it going to be used for?"—spec-ifically, "What is going to be done with this money?" I think it is only fair that I pass that along to you. They are perfectly glad to go the whole way if the society needs the money and will show what it is to be used for.

**Dr. Forster, retiring councilor, Tenth District.** My only purpose in being at this meeting is to present my suc-cessor from the Tenth District, Dr. James White of Gary.

(At this time the Council gave a rising vote of thanks to Dr. Forster and Dr. Christophel, retiring councilors of the Tenth and Thirteenth Districts respectively, and instructed the secretary to write each of them a letter expressing the appreciation of the Council for the time and services which they have given to the work of the State Medical Association.)

#### REPORTS OF OFFICERS

**Dr. Herman M. Baker, 1938 president.** I have no report to make. So far as last year is concerned I think the record will speak for itself.

In regard to raising the dues, the matter as it was discussed in the reference committee in the House was about as follows: There is apparent need for an assis-tant in THE JOURNAL office and for a clerical assistant in the general office. Then the question came up as to an assistant for Mr. Hendricks. . . . I think we have to give serious consideration to the matter of an assistant for Mr. Hendricks.

The other thing was the recommendation of more attention to graduate education in the state. Organized medicine is responsible for graduate education among the doctors. There just isn't any machinery available for graduate education except through the channels of organized medicine. It is our responsibility to see that men are kept in touch with the changes that are taking place so rapidly. For instance, this drug, sulfapyridine that we have heard discussed today. It is our responsi-bility absolutely to keep our men informed. My own concept of graduate education, and I think that is shared by many of us, is that it is an all-time job and a man to organize effectively a local group for graduate work has got to go right in the county and live with his people, and until you have accomplished that, I don't believe you will have accomplished very much. The State University has an excellent course in graduate education. However, the men who come to that course are not the ones who need it. . . . It is our responsibility, and the only way we are going to do it is to put someone on the job full time to organize that program. We estimated roughly that that program and additional assistants in the office would cost approximately \$12,000 a year. It was esti-mated to raise the dues \$5.00, and with the loss of membership for the first year or two we probably would get only \$12,000. Now there is something to the fact that we have about \$40,000 available in our treasury. There is a great deal of discussion about the use of this money. Certainly we do need a backlog of finance. Whether we need \$40,000 is questionable.

With regard to the immediate graduate education program, unfortunately we haven't been able to have a meeting of the graduate education committee. Just for your information, our concept of the immediate thing we might do is not going to take a full-time worker. At the request of the Executive Committee last year the Delaware-Blackford organization got together and more or less reorganized their whole set-up in regard to the Muncie Academy of Medicine and the county society. They have done a swell job. I think that will be a pat-tern for the whole nation. I hope that an exhibit of the county set-up will go to the A. M. A. as did our "Indiana plan" last year.

In regard to graduate education, if we could this year, as our first step in the program, organize five centers in the state similar to the organization set up in Muncie by the Delaware-Blackford County Medical Society, for instance, in Evansville, Terre Haute, South Bend, and



perhaps Fort Wayne, and then with Muncie over here on the east we will sort of have a skeleton set-up for graduate education in the state, and that isn't going to require a full-time man this year if all of you fellows will cooperate. Our idea is to establish about five teaching centers in the state.

I would like to say something about this business of health insurance and the national health situation, which, no doubt, Doctor Sensenich will enlarge upon. For those of you who did not hear Dr. Vohs' talk before the Secretaries' Conference last Sunday, it will appear in the March JOURNAL. It is my opinion that if the private practice of medicine is to be preserved in America, it will be preserved by voluntary health insurance, grants-in-aid by the Government in the states for the care of the medically needy, hospitals, and of course the purely indigent. California, Oregon, Utah, Missouri, Wisconsin, Michigan, New Jersey State Medical Associations already have perfected plans for voluntary health insurance. New York will be ready to shoot in a few weeks with their plan. None of them is in full operation; some just beginning. I am going to make this prediction, that within two years the Indiana State Medical Association will have to have a plan for pre-payment health insurance. For that reason, Dr. Forster's committee on the study of health insurance is the most vital committee next to your Executive Committee that you have today. That committee is going to need the help of everyone of us and all the boost we can give them to help them along. If Congress enacts even half of this legislation, recommended by the inter-departmental committee, it will cause the development of machinery and the expansion of the public health departments in the various states to a degree that none of us today can possibly conceive. If only that part of the report approved by the A. M. A. is passed by Congress, that building that is under construction by the Indiana Health Department won't be one-third large enough. I do believe that a lot of us are going to have to be prepared to do a lot of thinking; whether we want to stick to our old form of practice, etc., is not the question.

**Dr. E. M. Van Buskirk, president.** We are living in a period of changing conditions. This is brought to our attention when reading the daily papers and periodicals and it is impressed on our minds by discussions over the radio and in conversation with our friends. Every line of business, all occupations and professions are on the alert, and are giving serious thought as to their futures. In discussing the same problems, Heraclitus, centuries before Christ, compared his Grecian rivers, ever changing, to social conditions of his time, saying "We never see the same river twice." This is equally true of the healing art, as we shall never again see medicine as in the present year. Medicine, since the Grecian period, has gone through many slow moving evolutions. More abrupt changes are foreseen in the very near future. Our very existence as an organization is at stake, and strong leadership is demanded by our members. They must be guided, as nearly as possible, in the right direction. At the present session of the National Congress legislation will be considered and acted upon which will be one of the great strides towards socializing medicine.

The President's message of January 23rd proposed a National Health program, citing the needs of "better medical facilities and services in different sections and among different economic groups." Inequalities in income and living standards create hardships for parts of our country and groups of our people which most sorely need the benefits of modern medical science. The Inter-Departmental Committee "does not propose a great expansion of Federal Health Services. It recommends that plans be worked out and administered by States and localities with the assistance of Federal grants-in-aid." He points out the costs would be considerable, but in the long run it will wipe out certain relief costs. The President recommended the report of the Inter-Departmental Committee for careful study, which program advocated Federal-State cooperation. "Federal legislation necessarily precedes, for it indicates the assistance which may be made available to States in a comparative program for the Nation's health."

After the preceding recommendations are enacted in Federal and State laws, much work will be put upon our shoulders. We must assist the various National and State units in working out these problems for the general benefit of all.

Anticipating such federal legislation, the Executive Committee recommended that a Liaison Committee with

the Indiana State Department of Public Welfare be appointed by your president. Such committee was announced in the January issue of THE JOURNAL. I feel that this is a very strong committee, and that each and every one so appointed should familiarize himself with all the facts and conditions confronting our Nation at present, so that when the proper time comes for the members of this committee to act they will do it wisely. Other committees pertaining to these various subjects will assume their responsibilities cheerfully and cooperate to the utmost. We must all do our best, as the coming year and the one following will determine the actions of our profession for years to come.

In our own State, various laws are being proposed, which, if enacted, will grant hospitals and medical units certain privileges. The hospitals are asking that such laws be enacted which will give them the right to establish an insurance or pre-payment plan by which the hospital bills of the insured can be met when an emergency arises. Some hospital measures go so far as to include certain medical expenses. The physicians also are working on plans whereby all medical expenses can be met by some form of insurance. This is to be controlled by the county medical societies, or by some group in close cooperation with the medical society. All of these responsibilities are to be taken seriously and demand much thought and work in order that no mistakes are made.

It is my sincere hope that all of our present problems will be met in a proper manner, and that in years to come we can look back to the year of 1939, and the years immediately preceding and following, as years of the greatest, most eventful period in the history of American medicine.

**Dr. A. F. Weyerbacher, treasurer,** summarized the following annual financial report which was compiled by George S. Olive and Company, certified public accountants:

#### TREASURER'S REPORT

January 16, 1939.

The Council,  
Indiana State Medical Association,  
Indianapolis, Ind.  
Gentlemen:

We have examined the cash records of your Association for the year ended December 31, 1938. This examination was undertaken for the purpose of determining and verifying the cash transactions for the year, and of verifying the assets at the close of the year, as reflected by the records.

The results of our examination are presented in this report, which includes: (1) text of comments; (2) statement of assets of all funds for the year ended December 31, 1938; (3) statement of receipts and disbursements of all funds for the year ended December 31, 1938. A list of the statements is presented on the page following this text.

#### General Comments

In Exhibit A is presented an analysis of the increase in assets of the Association for the year ended December 31, 1938, showing in summary form the sources from which this increase was derived.

Details of the assets of all funds are presented in Exhibit B. We examined securities of the Association and confirmed bank balances with the depositories.

Details of the receipts and disbursements of cash in the general fund, of THE JOURNAL of the Indiana State Medical Association, and of the medical defense fund are presented in Exhibits C, D, and E.

Yours very truly,

GEORGE S. OLIVE & CO.,  
Certified Public Accountants.

#### Exhibit A

#### INDIANA STATE MEDICAL ASSOCIATION

#### Analysis of Increase in Assets, All Funds.

#### Year Ended December 31, 1938

TOTAL ASSETS, DEC. 31, 1938—EXHIBIT B.....	\$47,780.69
TOTAL ASSETS, DEC. 31, 1937.....	45,213.84
NET INCREASE .....	\$ 2,566.85

Arising from the following sources:

Excess of operating cash receipts over operating cash disbursements—general fund, year ended Dec. 31, 1938:  
Receipts—Exhibit C...\$26,359.63  
Disbursements — Exhibit C ..... 26,234.42

Excess of operating receipts ... \$ 125.21

Excess of cash receipts over cash disbursements — medical defense fund, year ended Dec. 31, 1938. 2,006.55

Excess of cash receipts over cash disbursements—The Journal of the Indiana State Medical Association, year ended Dec. 31, 1938 ..... 525.09

\$ 2,656.85

Less:

Reduction of investment Rokeby Apartment Hotel bond ..... 10.00  
Reduction of investment Beachton Court Apartment bonds ... 80.00

90.00

Total net increase ..... \$ 2,566.85

#### Exhibit B

#### Statement of Assets, All Funds, at December 31, 1938

##### General Fund:

Cash on deposit—Exhibit C.....\$ 4,191.90

Petty cash fund..... 200.00

Investments:

Fort Wayne, Indiana, school improvement bonds ..... 3,000.00

Indianapolis, Indiana, City Hospital bonds ..... 5,000.00

Marion County, Indiana, Flood Prevention bonds ..... 3,000.00

United States Treasury bonds..... 10,000.00

Beachton Court Apartments, Chicago, bonds evidenced by certificate of deposit ..... 3,800.00

Rokeby Apartment Hotel, Chicago, bond evidenced by certificate of deposit ..... 955.00

Total general fund assets ..... \$30,146.90

##### The Journal of the Indiana State Medical Association:

Cash on deposit—Exhibit D..... 3,097.85

##### Medical Defense Fund:

Cash on deposit—Exhibit E..... 4,535.94

Investments:

Fort Wayne, Indiana, School Improvement bonds ..... 2,000.00

Indianapolis, Indiana, City Hospital bond ..... 1,000.00

Marion County, Indiana, Flood Prevention bonds ..... 2,000.00

United States Treasury Bonds..... 5,000.00

Total medical defense fund assets.. 14,535.94

TOTAL ASSETS—ALL FUNDS—Exhibit A.....\$47,780.69

#### Exhibit C

#### Comparative Statement of Cash Receipts and Disbursements, Years Ended December 31, 1938, and December 31, 1937

##### GENERAL FUND

	YEAR ENDED		
	Dec. 31, 1938	Dec. 31, 1937	Increase —Decrease
CASH BALANCE AT BEGINNING OF YEAR...	\$ 4,066.69	\$ 5,088.79	-\$ 1,022.10

##### Receipts:

Membership dues .....	21,253.00	20,720.00	533.00
Income from exhibits .	4,267.88	2,600.00	1,667.88

Rokeby Liquidation Trust Distribution .....	10.00	15.00	-5.00
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Beachton Court Liquidation Trust Distribution .....	80.00	120.00	-40.00
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##### Interest income:

United States Treasury bonds .....	286.25	286.25	.....
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Indianapolis, Indiana, City Hospital bonds .....	200.00	223.75	-23.75
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Marion County, Indiana, Flood Prevention bonds .....	127.50	127.50	.....
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Fort Wayne, Indiana, School Improvement bonds .....	135.00	135.00	.....
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Lake County, Indiana, State Highway Aid bonds .....	.....	49.00	-49.00
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Proceeds from maturity of Lake County, Indiana, State Highway Aid bonds...	.....	2,000.00	-2,000.00
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Total receipts .....	\$26,359.63	\$26,276.50	\$ 83.13
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##### BEGINNING BALANCE

PLUS CASH RECEIPTS.	\$30,426.32	\$31,365.29	-\$ 938.97
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##### Disbursements:

Transfers of applicable portion of dues to:

The Journal of the Indiana State Medical Association — Exhibit D .....	\$ 6,148.00	\$ 5,970.00	178.00
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Medical defense fund : Exhibit E .....	2,265.75	2,212.50	53.25
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Headquarters office expense .....	10,333.71	9,285.76	1,047.95
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Publicity Committee ..	1,154.65	433.09	721.56
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Public policy .....	165.71	943.62	-777.91
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Council .....	528.59	166.57	362.02
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Officers .....	774.18	268.50	505.68
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Annual session .....	3,431.84	2,169.84	1,262.00
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Miscellaneous committees .....	794.00	433.16	360.84
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Postgraduate study....	579.96	217.09	362.87
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Federal O.A.B. tax....	58.03	51.95	6.08
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Premium and accrued interest on purchase of United States Treasury bonds .....	.....	146.52	-146.52
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Disbursement for United States Treasury bonds .....	.....	5,000.00	-5,000.00
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Total disbursements ..	\$26,234.42	\$27,298.60	-\$ 1,064.18
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##### CASH BALANCE AT END

OF YEAR .....	\$ 4,191.90	\$ 4,066.69	\$ 125.21
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(Exhibit B)



Exhibit D

Statement of Cash Receipts and Disbursements,  
Year Ended December 31, 1938

THE JOURNAL OF THE INDIANA STATE MEDICAL  
ASSOCIATION

BALANCE, JANUARY 1, 1938..... \$ 2,572.76

Receipts:

Subscriptions—members—Exhibit C...\$ 6,148.00  
Subscriptions—non-members ..... 138.75  
Advertising ..... 11,024.87  
Collections on accounts receivable.... 323.41  
Single copy sales..... 16.05  
Electrotypes ..... 104.89  
Miscellaneous ..... 3.00

Total receipts ..... 17,758.97

\$20,331.73

Disbursements:

Editorial and management salaries...\$ 7,622.55  
Printing ..... 6,857.48  
Postage ..... 656.90  
Electrotypes ..... 639.81  
Office rent and light..... 738.76  
Office supplies ..... 71.69  
Press clippings ..... 103.33  
Federal O.A.B. tax ..... 51.65  
Extras—help and printing..... 270.01  
Advertising commissions ..... 221.70

Total disbursements ..... 17,233.88

BALANCE, DECEMBER 31, 1938—Ex-

hibit B ..... \$ 3,097.85

Exhibit E

MEDICAL DEFENSE FUND

Statement of Cash Receipts and Disbursements  
Year Ended December 31, 1938

BALANCE, JANUARY 1, 1938..... \$ 2,529.39

Receipts:

Transfer of applicable portion of dues  
from the general fund—Exhibit C...\$ 2,265.75  
Interest income:  
United States Treasury bonds..... 155.00  
Indianapolis, Indiana, City Hospital  
bonds ..... 47.50  
Marion County, Indiana, Flood Pre-  
vention bonds ..... 85.00  
Fort Wayne, Indiana, School Im-  
provement bonds ..... 90.00

Total receipts ..... 2,643.25

5,172.64

Disbursements:

Attorney's retainer fee.....\$ 600.00  
Malpractice fee ..... 15.00  
Treasurer's bond ..... 15.00  
Interest collection charge ..... .45  
Reprinting by-laws ..... 6.25

Total disbursements ..... 636.70

BALANCE, DECEMBER 31, 1938—Ex-

hibit B ..... \$ 4,535.94

Dr. E. M. Shanklin, editor of THE JOURNAL. For the year 1938, THE JOURNAL carried more reading pages than ever before in its history. This year the magazine has averaged 102 pages per issue, 61 pages of reading, and 41 pages of advertising. The comparison of pages in the six years that THE JOURNAL has been under the direct control of the Council shows the following average number of pages per issue:

1933— 82 pages  
1934— 84 pages

1935— 94 pages  
1936— 96 pages  
1937— 99 pages  
1938—102 pages

Financially our magazine has done very well this year, for our total income exceeded expenditures by \$521, and if you will bear in mind that we have increased the number of reading pages without increasing the advertising pages, this is very encouraging. An increase in advertising rates which took effect with new advertisers in 1937 and with all advertisers in 1938 is greatly responsible for this.

A new feature for 1938 (being continued in 1939) is the "Topic of the Month" which has brought a great deal of new material and has accounted for most of the increase in our reading pages. Many of these special articles have been directly solicited, for we have felt that certain members should be asked to contribute articles in relation to their specialties. However, numerous unsolicited articles have been contributed by members on various special topics which were appropriate and which we were very glad to use.

This special topic feature is continued during 1939 at the unanimous vote of the members of the Editorial Board. Several new topics will be featured this year and there is reason to believe that the program will meet with the same favor as in 1938.

Some complaint reached us in regard to the use of six-point type in the November JOURNAL in which appeared twenty-eight pages of the small type containing the reports of the proceedings of the annual convention. Probably much of the discussion that takes place in the House of Delegates could be condensed so that eight-point type could be used in these pages. While on this subject of six-point type, we wonder if we may not discontinue the use of this type altogether? Changing to an eight-point type would mean an increase of approximately one-third of the space now devoted to six-point, but this could be reduced through condensation of material. We ask your permission to make these changes.

At headquarters we maintain a "scrap book" file in which are kept all the comments we receive in regard to our publication—complimentary and uncomplimentary. However, all save a few are of the sort that pleases us and while there are many from which we could quote proudly, we refer to only one, from Dr. W. H. Brooksher, secretary-editor of the Arkansas state society, who said (in reference to our annual convention notes): "If these things can be so interesting to me at this distance, I know your colleagues have thoroughly enjoyed them."

There has been some criticism in regard to the use of color on the cover pages of our magazine and on one occasion it was stated that the extra money might well be devoted to extra pages. The expense is very small, averaging approximately eleven dollars per issue, and it is a very good investment in that it adds materially to the attractiveness of our magazine. Nearly all other state journals use color on their covers; we believe that the Council will not object to our efforts to "keep up with the Joneses." We have noticed, too, that many of our state journals have eliminated all material from their front pages with the exception of the name of the magazine, volume number, and date. Your comments upon similar arrangement for our JOURNAL will be appreciated.

We often have talked about what our "home folk" think of THE JOURNALS. Many letters came to us throughout the year, but we have no means of knowing just what the rank and file of our membership think of our efforts. This year we plan to ask, by letter, approximately 500 of our membership just how THE JOURNAL appeals to them. We have, in rather a haphazard sort of fashion, chosen a list of members to whom these inquiries will be addressed. We are not seeking compliments; we really want to know what appeals to the average member to learn how well they like some of our various departments in THE JOURNAL. After all, THE JOURNAL is the personal property of 3,000 members, each of whom has a right to say what he or she would like to have included in THE JOURNAL.

There is one small financial matter in which the editor is interested. He would like the authorization of the Council for the expenditure of fifteen dollars for a copy of the 1938 edition of the Directory of the American Medical Association. On two previous occasions this expenditure was authorized, but last year the local county medical society supplied a copy for use as secretary of the local society. Since your editor is no longer secre-

tary of the local group, the book has been transferred to another office. It is essential to have this volume in the office of the editor, and therefore this request is made.

In conclusion, and on behalf of THE JOURNAL staff, I express appreciation for the cooperation we have had from the Council as well as the membership at large. We believe we have a good magazine, and we are proud of it. The work of the editor, while at times a little arduous, is a pleasure, and he expresses thanks for the privilege of having served The Council and the Association membership.

(Upon the motion of Dr. White the Council allowed the editor of THE JOURNAL \$15 for the purchase of an A. M. A. directory.)

(Dr. Clark made the motion that the Council grant the Editorial Board permission to make whatever changes it sees fit in the size of type used in THE JOURNAL. Motion seconded, and carried.)

UNFINISHED BUSINESS

1. **A. M. A. Survey.** Report made that the following county medical societies had undertaken this survey, eighteen of which already had sent in their final reports:

*Allen	*Madison
*Carroll	*Marion
*Dearborn-Ohio	*Miami
*Dubois	*Monroe
*Elkhart	*Noble
*Floyd	*Porter
*Fountain-Warren	*Putnam
*Gibson	*Randolph
*Grant	*St. Joseph
*Hendricks	*Shelby
*Jackson	*Vanderburgh
*Knox	*Vigo
*Kosciusko	*Wabash
*LaGrange	*Whitley
*LaPorte	*Wayne-Union

(\*survey completed)

2. **1938 Annual Session at Indianapolis.** Dr. Clark made a motion, which was seconded, and carried, that the various 1938 convention committees be given a vote of thanks for their efforts in putting on what the Council considered a very successful annual session.

SUGGESTIONS AND PROPOSALS FOR 1939 SESSION AT FORT WAYNE

1. The dates set by the Executive Committee, Tuesday, Wednesday and Thursday, October 10, 11 and 12, 1939, were approved by the Council.

2. Dr. M. R. Lohman of Fort Wayne, co-chairman of the General Arrangements Committee, announced that the meetings would be held in the Shrine Auditorium, Shrine Club House, and the Chamber of Commerce, the rental of which would not exceed \$400. Following discussion concerning the financing of annual sessions by individual county medical societies, Dr. Clark moved that the Council allocate an amount not to exceed \$1,000 for the Fort Wayne convention. Motion seconded by Dr. Sparks, and carried.

3. The following general outline for the program was approved:

Monday, October 9, 1939

Meeting of Health Officers

Tuesday, October 10, 1939

Morning —Registration  
Golf, Trap Shooting and other sports  
Afternoon—Council meeting  
Meeting of House of Delegates  
Golf continued

Evening —Smoker and stag party  
Dinner for women physicians

Wednesday, October 11, 1939

Morning —Scientific meetings  
Noon —Class and fraternity get-togethers and luncheons  
Afternoon—Scientific meetings

Evening —Annual banquet or meeting for lay public  
Thursday, October 12, 1939

Morning —Final meeting of House of Delegates and Council  
Final scientific meeting  
Adjournment at noon.

4. Dr. Lohman announced that the Lincoln National Life Insurance Company of Fort Wayne would like to sponsor a speaker for the general program and that Dr. George E. Fahr, of Minneapolis, or Dr. Elliott P. Joslin, of Boston, had been suggested for this place. It was

taken by consent that the Council approved of this action.

5. **Convention facilities for 1939.** Report written by Drs. Lohman, H. V. Blosser and L. T. Rawles, chairmen, General Arrangements Committee, was presented to the Council.

6. **Scientific exhibit.** Dr. Clark moved that the scientific exhibit be continued. Motion seconded by Dr. Garner, and carried.

7. **Employment of professional medical stenographers.** Dr. Clark moved that the employment of professional medical stenographers be continued. Motion duly seconded, and carried.

Membership Report by Districts

MEMBERSHIP REPORT

Indiana State Medical Association  
December 31, 1938

County Society	No. M. Ds. in County Soc. 1938	Mems. Dec. 31 1938	Mems. Dec. 31 1937	Loss—	Gain	Elig. Non-Mems.	New Members	Removed and Retired	Deceased Ineligible
<b>First District</b>									
Posey .....	22	13	13	..	4	..	3	1	2
Vanderburgh ..	180	130	124	6	30	11	19	2	4
Warrick .....	19	13	6	7	3	4	3	1	..
Spencer .....	19	12	12	..	4	..	4	..	1
Perry .....	15	11	11	..	3	..	1	..	..
*Gibson .....	33	26	27	-1	3	1	5	..	1
Pike .....	12	7	8	-1	4	..	..	..	1
Total .....	300	212	201	11	51	16	35	4	9

<b>Second District</b>									
Knox .....	62	38	39	-1	12	2	9	3	4
Darless-Martin ..	31	24	24	..	7	1	..	..	..
Sullivan .....	27	22	21	1	1	1	3	..	1
Greene .....	23	16	16	..	7	1	..	..	..
Owen .....	12	8	7	1	4	..	..	..	..
*Monroe .....	41	36	35	1	2	3	1	2	1
Total .....	196	144	142	2	33	8	13	5	6

<b>Third District</b>									
Lawrence .....	30	21	22	-1	2	1	9	1	..
Orange .....	18	15	16	-1	..	1	2	..	1
Crawford .....	10	4	3	1	5	1	..	1	..
Washington .....	11	7	7	..	2	..	1	..	1
Scott .....	7	5	3	2	..	2	2	..	..
Clark .....	27	14	15	-1	12	..	1	1	..
Floyd .....	42	36	36	..	2	1	1	3	3
Harrison .....	11	7	8	-1	4	..	..	..	..
Dubois .....	25	20	19	1	4	2	1	1	..
Total .....	181	129	129	..	31	8	17	7	5

<b>Fourth District</b>									
Brown .....	4	..	..	..	1	..	..	..	3
*Bartholomew ..	34	28	28	..	2	..	1	1	3
Decatur .....	23	18	20	-2	2	2	3	1	..
Jackson .....	23	19	16	3	1	2	2	..	1
*Jennings .....	10	7	7	..	2	..	2	..	..
Ripley .....	20	13	11	2	3	1	4	1	..
Jefferson .....	27	17	20	-3	5	..	5	..	..
Switzerland .....	6	5	6	-1	1	..	..	..	..
Dearborn-Ohio ..	31	20	18	2	2	3	5	1	5
Total .....	178	127	126	1	19	8	22	4	12

<b>Fifth District</b>									
Parke-Vermillion	38	23	27	-4	11	..	2	1	1
Putnam .....	20	14	15	-1	5	..	..	..	1
*Vigo .....	131	121	116	5	3	5	3	3	5
Clay .....	22	16	15	1	3	..	..	2	1
Total .....	211	174	173	1	22	5	5	6	8



County Society	No. M.D.s in *County Soc.	Mem. Dec. 31 1938	Mem. Dec. 31 1937	Loss—	Gain	Elig. Non-Mem.	New Members	Removed and Retired	Deceased Ineligible
<b>Sixth District</b>									
Hancock .....	21	19	18	1	1	..	1	..	..
Henry .....	40	35	35	..	2	1	..	1	3
Wayne-Union ..	86	57	53	4	15	5	5	4	7
Rush .....	22	16	20	-4	4	..	1	..	2
Fayette-Franklin	26	21	21	..	1	..	4	2	2
Shelby .....	31	18	20	-2	6	..	3	4	..
Total .....	226	166	167	-1	29	6	14	11	14
<b>Seventh District</b>									
Hendricks .....	28	16	17	-1	5	1	3	2	3
*Marion .....	802	584	559	25	149	34	42	17	35
Morgan .....	34	19	21	-2	9	2	5	1	..
Johnson .....	22	14	11	3	7	..	1	1	..
Total .....	886	633	608	25	170	37	51	21	38
<b>Eighth District</b>									
Madison .....	95	77	72	5	9	4	7	2	3
*Delaware-Bikford	100	72	73	-1	18	5	5	3	4
Jay .....	25	14	13	1	11	1	..	..	..
Randolph .....	29	23	20	3	4	2	4	1	..
Total .....	249	186	178	8	42	12	16	6	7
<b>Ninth District</b>									
Benton .....	15	13	14	-1	..	..	..	..	2
*Founta'n-Warren	28	24	18	6	2	2	1	..	1
*Tippecanoe .....	97	88	90	-2	4	3	9	1	..
*Montgomery ..	47	30	30	..	5	..	9	3	..
Clinton .....	32	22	22	..	4	..	2	2	2
Tipton .....	18	12	11	1	4	..	2	..	..
Boone .....	26	17	15	2	7	1	2	..	1
Hamilton .....	30	17	19	-2	8	..	2	1	2
White .....	16	2	3	-1	14	..	..	..	..
Total .....	309	225	222	3	48	6	27	7	8
<b>Tenth District</b>									
Lake .....	282	226	200	26	46	29	11	2	5
Porter .....	30	23	22	1	6	2	2	..	..
Jasper-Newton ..	27	19	16	3	4	..	7	1	..
Total .....	339	268	238	30	56	31	20	3	5
<b>Eleventh District</b>									
Carroll .....	17	13	16	-3	2	..	2	1	..
Cass .....	53	35	35	..	16	1	3	..	1
Miami .....	35	24	24	..	8	..	1	1	1
Wabash .....	35	31	28	3	1	1	4	1	1
Huntington .....	32	22	20	2	6	2	3	..	2
Howard .....	47	32	33	-1	7	1	5	3	3
Grant .....	79	59	54	5	9	7	7	1	6
Total .....	298	216	210	6	49	12	25	7	14
<b>Twelfth District</b>									
LaGrange .....	12	10	11	-1	2	..	..	1	..
Steuben .....	22	11	9	2	9	2	3	..	..
Noble .....	30	26	26	..	2	2	2	1	..
DeKalb .....	28	21	21	..	2	..	4	..	1
Whitley .....	16	9	9	..	1	..	3	..	3
*Allen .....	212	157	152	5	27	6	12	3	17
Wells .....	24	17	17	..	7	1	..	..	..
*Adams .....	23	19	19	..	1	..	2	..	1
Total .....	367	270	264	6	51	11	26	5	22

County Society	No. M.D.s in *County Soc.	Mem. Dec. 31 1938	Mem. Dec. 31 1937	Loss—	Gain	Elig. Non-Mem.	New Members	Removed and Retired	Deceased Ineligible
<b>Thirteenth District</b>									
LaPorte .....	66	52	48	4	10	5	7	1	..
*St. Joseph ...	172	144	141	3	13	5	10	2	10
*Elkhart .....	76	67	65	2	5	2	2	1	2
Starke .....	6	5	5	..	1	..	..	..	..
Pulaski .....	9	4	4	..	4	..	1	..	..
Fulton .....	16	12	13	-1	4	..	..	..	..
Marshall .....	34	26	24	2	5	2	1	..	3
Kosciusko .....	30	23	21	2	2	2	3	1	3
Total .....	409	333	321	12	44	16	24	5	18
<b>Summary by Districts</b>									
1st District ....	300	212	201	11	51	16	35	4	9
2nd District ....	196	144	142	2	33	8	13	5	6
3rd District ....	181	129	129	..	31	8	17	7	5
4th District ....	178	127	126	1	19	8	22	4	12
5th District ....	211	174	173	1	22	5	5	6	8
6th District ....	226	166	167	-1	29	6	14	11	14
7th District ....	886	633	608	25	170	37	51	21	38
8th District ....	249	186	178	8	42	12	16	6	7
9th District ....	309	225	222	3	48	6	27	7	8
10th District ....	339	268	238	30	56	31	20	3	5
11th District ....	298	216	210	6	49	12	25	7	14
12th District ....	367	270	264	6	51	11	26	5	22
13th District ....	409	333	321	12	44	16	24	5	18
Total .....	4149	3083	2979	104	645	176	295	91	166

\* Physicians are listed in the counties in which they hold membership; not in the counties in which they reside.

Luncheon

The Council recessed for luncheon in Parlor A of the Indianapolis Athletic Club. The following guests and committee chairmen were present and gave brief reports on the activities of their offices:

Dr. N. K. Forster, chairman, Permanent Study Committee on Health Insurance and National Medical Situation. "This is in no sense a committee report because of the short time the committee has been formed, and we have had no opportunity for a meeting so far. However, a glance at the National picture shows the President submitting to Congress a program of health insurance and subsidies requesting careful study of proposals submitted by the health conference committee.

"Senator Wagner is about to introduce a bill appropriating fifty million dollars to follow through. The money is to be divided among the states voting appropriations for the same purpose. This can be considered but another wedge for the enactment of some general scheme for compulsory regulation with federal domination. Whether the need for this is present or not makes little difference. There has been too much agitation in its favor and it represents too great a political lever to doubt that some measures will be ultimately adopted, giving the government further control of another phase in our economic set-up with limitations on our activities.

"So far as I know no demand has come from the States for this sort of thing—it has originated with the federal government, so that it more and more snacks of political expediency, as does the attempt to discredit the medical profession in the suit against the American Medical Association. What we are going to do about it, I don't know. When you contemplate it, it gives you a feeling of helplessness because of the enormity of the problem and of the many phases of its administration. Under such a set-up, we can hardly hope that the physician will be favored. However, it seems to me that we must follow the lead of many of the other states in adopting and controlling some form of voluntary insurance covering all of the medical needs of the people. The splendid record established by the states who have adopted this measure points the way, and I sincerely hope that we will soon be able to offer our services under an insurance plan which will be mutually satis-

factory and effectively stop the movement of centralized federal control. I heartily endorse Dr. Baker's statement that voluntary insurance offers the most favorable method of handling the situation, and that undoubtedly any indigent care will have to be subsidized by governmental grants-in-aid. Any recommendations this committee will make will be guided by your suggestions. We want them and need them, and will appreciate your sending to this committee any ideas you may have in aiding the solution of this problem."

**Dr. Herman M. Baker**, chairman, Committee on Medical Education and Hospitals, repeated the remarks he made before the Council, saying that it might be well to organize in about five centers of the state a program similar to that being carried on in Muncie by the Delaware-Blackford County Medical Society.

As chairman of the Liaison Committee with the Indiana State Department of Public Welfare, Dr. Baker reported that nothing had developed as yet for this committee and the committee had had no meetings as yet.

**Dr. A. M. Mitchell**, chairman, Committee on Secretaries' Conference.

**Dr. I. C. Barclay**, chairman, Liaison Committee with Indiana Crippled Children's Bureau.

**Dr. Alfred Ellison**, chairman, Committee to Study Cultists and Irregular Practitioners. "We have not had a meeting as yet. This is the second year that this committee has been in existence. Last year this committee was able to collect some information which we believe will be of help in the future. We have definite information about one hundred violators of the Medical Practice Act in about thirty counties in the state. In addition we have replies from some thirty states which we hope to make use of during this coming year. One of the purposes of this committee during the year will be to inform the counties how best to proceed against these violators. . . . If all of us would practice medicine 100 per cent, there would be no cults. . . . Massage and manipulation have not received the place in our curriculum that they should. Physical therapy should be developed to combat the cults."

**Dr. F. S. Crockett**, chairman, Committee on Indiana Inter-Professional Health Council. "The Inter-Professional Health Council is a recent venture, born in Lafayette at the suggestion of Dean Jordan of the School of Pharmacy of Purdue University. The Council is formed by five members from each of five groups in the state of Indiana—druggists, nurses, dentists, hospitals and medicine. The Council itself should serve as a clearing house for things of common interest affecting the five groups. It is the hope that that may be the function of this group. At the present time the disposition is to make the state group a little more effective by organizing county or district units in which the groups are locally represented. Aside from that, this is a report of progress."

**Dr. J. W. Bowers**, secretary, State Board of Medical Registration and Examination, answered questions regarding the licensing of graduates of foreign medical colleges. "Any graduate of a medical school outside of the United States and its possessions shall meet the minimum requirements of American medical students and in addition thereto shall have entered and graduated from or repeated the fourth year in a recognized American medical college. Then he would be eligible to examination. No foreign graduate is entitled to an Indiana license by reciprocity from another state. He must take the examination. He cannot take the examination until he has completed the senior year in an American medical college, and the examination must be taken in English. There is no such thing as a temporary permit."

**Dr. George C. Stevens**, director, Medical Care Division, Indiana State Department of Public Welfare. "We are receiving rather favorable response to the community mental hygiene clinics, and thus far Columbus, Richmond and Bloomington have invited us to extend clinical services. As you know, the Welfare Board designated some of the members of the Committee on Mental Health of the State Association, that is, Drs. Carter, DeArmond, Harshman, Norton and Baker, as members of the liaison committee between the State Association and the Department of Public Welfare."

**Dr. H. B. Mettel**, director, Bureau of Maternal and Child Health, State Board of Health. "The Bureau is glad to

report that we have received great assistance from the special committees of the State Medical Society. They have functioned 100 per cent. We have had no forms of disagreement. At this time I wish to say that as far as the furthering of the educational program along the lines of maternity, child health, pediatrics and obstetrics is concerned, with the exception of the two weeks' postgraduate course we are offering, with the cooperation of the State Medical Association, Dr. Gatch and his faculty, we have no requests to use the funds that are already available for this work. People are not utilizing the opportunities that are offered them. I see no need for raising more funds to promote medical postgraduate education when the funds now available are not being used.

"Dr. Asher asked me to state that the liaison committee of last year has been working with the State Welfare Department, the Board of Health and the State Medical Association on a law licensing maternity homes, large general hospitals and small general hospitals. However, this has been a tremendous task and a report will be presented to the State Welfare Board at an early date. We hope it will meet with the approval of the State Medical Association. Again let me say we have enjoyed meeting with the Council and the cooperation we have received from this Society."

**Dr. Daniel L. Bower**, member of the House of Representatives from Marion county, reported on the status of medical bills which had been introduced in the Legislature. "The sentiment of the House up to date seems to be very favorable to the profession. I urge each of you to let your representatives know what you want in regard to medical legislation."

**Dr. C. A. Nate**, chairman, Executive Committee. "This report of the work of the Executive Committee necessarily will be rather long because we have had an unusual number of problems presented to the Committee this year, principally because of the changes in the economic viewpoint of the profession which was brought about by the Washington health conference, the action of the American Medical Association House of Delegates and also by our own. As a result of that we have had some weighty problems presented to the Executive Committee and it has been our purpose to interpret those in the light of the viewpoint that has been interpreted by the American Medical Association, and we have tried to carry on on that basis. We have no doubt that some of our decisions do not meet with universal approval, but all of the decisions of the Executive Committee concerning these matters have been unanimous.

"We have had three important questions to consider:

1. Question of hospital insurance and our stand on that subject. As you will recall, the House of Delegates of the State Association, following the report of that special committee, of which the Council was a part, approved hospital insurance, following which the Indiana State Hospital Association came to us and said, 'We have ready a bill to introduce in the State Assembly which is necessarily an enabling act to carry out non-profit hospital insurance plans.' The Executive Committee, after due deliberation and study felt that it was their interpretation of the stand of the State Medical group and of the national group that we approve that. We told them that 'If you present a bill it is our duty to approve it if it meets with our approval.' Following that considerable opposition developed to the bill approved. Last Sunday we had a special meeting of the Executive Committee and the members of Council who were present at the Secretaries' Conference, who endorsed that bill in principle. There is going to be considerable difference of opinion on that bill. As it stands now, the bill for a non-profit hospital insurance plan is in committee. We think this is a very important problem for the medical profession. We feel this, that any plan to be successful should be statewide; that, however, after talking to some other men it is impractical to start it as a statewide proposition. Therefore it is the belief of some of us at least that the medical profession must direct, probably not control, but must direct the formation of these local hospital groups in large sections, with a view eventually to molding them into a statewide organization. For that reason we believe that the Hospital Association and the State Medical Association should more or less agree upon a standard contract, so that in the various communities where it is started, those eventually could be molded into a statewide plan. It has to be statewide eventually so that the smaller communities can participate. The



American Hospital Association does not approve plans unless they carry out our idea that the patient must have free choice of physician and free choice of hospital.

"The Indiana House of Delegates passed a resolution last fall asking the state medical association to set up a plan of state voluntary health insurance. The Executive Committee has not done anything about that. The sentiment is that we not do anything about it until the House of Delegates is more explicit on this point. Dr. Vohs said if we did have a state hospital plan, this could be molded into that plan.

2. Farm Security Administration. Following the meeting of the House of Delegates last summer representatives of the Farm Security Administration met several times with the Executive Committee and presented a plan to take care of their clients. Briefly, this is the plan. First they would contact the county medical societies and ask them to give medical care to their clients who, they state, are of the very low income or indigent group. They stated furthermore that they would inform the medical society as to who were their clients at all times, and they would lend to an organization, probably the secretary of the medical society, a certain amount of money per family to defray the medical expenses of that group. There is considerable opposition, I find, to that arrangement throughout the state. The Executive Committee felt that if the medical society had complete control of the arrangement—complete control of the money, and the patient was allowed to choose his own physician—the plan would meet with the approval of the societies.

3. Question of the care of the indigent by the doctors in the various townships and their relationship to the township trustee. We have received complaints from doctors concerning:

- (a) The fact that they couldn't get their money from the township trustees, and
- (b) From other doctors that some doctors in their community had been making a racket of this indigent care.

We also get the complaint from township trustees that certain doctors have been making a racket out of medical relief, so much that we are told that half of the time at a recent state meeting of the township trustees was taken up discussing medical relief costs. Mr. Hendricks felt, and so did I, that there probably should be a liaison committee set up between the township trustees association and the State Medical Association to try to work out these problems. This seems to be particularly true about surgical services. For instance, now in one county we are told that the cost for an appendix operation is \$125.00 for relief patients, while here it is nothing. To us it is quite a problem and source of considerable grief and criticism of the medical profession in general. Therefore, I think we should have a liaison committee or some sort of a committee to try to work out this problem.

"The work of the Executive Committee has been a pleasure. We feel that we probably have made some mistakes in judgment. We feel that we have tried to interpret the present trends in medical development; the actions of the Committee have been unanimous. We feel that this body is the one to tell us if we have made any serious mistakes."

**Dr. C. H. McCaskey**, member of the Executive Committee. "I have nothing further to add; I only wish to emphasize what Dr. Nafe has said, especially the last part of his report relative to the inequality of medical service to indigent patients of the state. I think his suggestion that we have a liaison committee to take this up with the township trustees association should be considered rather seriously."

**Dr. R. L. Sensenich**, member of the Board of Trustees of the American Medical Association. "As the reports of the various committees have been given certain things are outstanding. The burden of much of our discussion seems to have been the matter of indigent relief, resettlement administration, and the inequalities of charges for medical care in various communities, and especially the latter suggestion that a liaison committee be established to meet with and maintain contact with the township trustees' association. Along in 1936 we had such a committee. That's all a very good thing. It was possible for us in meeting of the Executive Committee with the township trustees' association to discuss some of these things which have been brought

out. Unfortunately this is too much of a local problem to be worked out in these meetings.

"Much has been said about the establishment of voluntary systems of health insurance. Voluntary systems of health insurance are not new and some form of contract practice has existed for many, many years. . . . I talked with Carl Vohs last Sunday about their plan in St. Louis. St. Louis, I think, was probably one of the early homes of contract practice. . . . So they started out on group hospital insurance. It has worked very well. It has some little weak points. Now, in their group hospital insurance they have followed the unhappy trend, in that as soon as they accumulated any money they began to increase benefits without the guidance of any actuarial experience. . . . So they have extended the benefits to be covered by their group hospital insurance. They expect the Red Cross to take care of epidemics. . . . There is a vast difference between health insurance and hospital insurance. The principle that underlies the unit system is their assumption that they cannot pay the physician a fixed fee for the service that he renders because there are too many physicians that are dishonest. They contend that this destroys the possibility of any kind of insurance unless they put restrictions on the amount. . . .

"The executive officers and heads of departments of the American Medical Association have been indicted in Washington. The action taken against the American Medical Association is for the purpose of making it impossible for any county medical society to take a position preventing its members from following any system of practice which is not acceptable to them. The whole future of medicine depends upon the outcome of action which might interfere with the right of each medical unit to discipline its own membership.

"It all comes back to this one principle—if the medical profession can discipline its own membership, you will not have any difficulty with these outside problems. . . . You may then have a health insurance set up on a definite fee basis per service rendered. The problem revolves around the right of a medical association to discipline its own membership, and the willingness of that membership to undergo some discipline.

"In order that we may set up a new system of distribution of medical care, it will be necessary to set up standards which our membership will respect and it will be necessary for our associations to enforce the maintenance of those standards."

**Dr. Don F. Cameron**, **Dr. F. S. Crockett**, **Dr. H. G. Hamer**, and **Dr. George Dillinger**, delegates to the American Medical Association. **Dr. Crockett** said he had received a letter from **Dr. Cary**, a member of the Committee of Seven and also of the Committee on Legislative Affairs of the American Medical Association, who has been in Washington, stating he was very confident that the President had expressed himself as not in favor of any change in the form of medical practice.

**Dr. Verne K. Harvey**, secretary, State Board of Health. "I want to take this opportunity to thank the headquarters office of the State Medical Association and its officers and the various committees, the Executive, Liaison, Syphilis and the Legislative committees, for the fine assistance that they have rendered the State Board of Health in the past. I only regret that this Association does not have larger representation and more authority on the State Board of Health than it now has. If some of this legislation goes through it looks like the State Board of Health will have more responsibility put upon it than ever before. That is more reason why we should continue to enjoy the cooperation of this Association as we have in the past."

**Dr. W. D. Gatch**, dean, Indiana University School of Medicine. "I thank you for inviting me to this meeting, and for the support you are giving House Bill 74. This, I believe, will benefit the taxpayer, the doctor and the Medical School.

"Medical education has become more expensive because of increases in the requirements for admission, and because of the establishment of National Examining Boards for the specialties.

"When the medical student reaches the Indianapolis campus, he has already been in college for four years.

His training must be of post-graduate character. We have had to change our pedagogy so as to give more individual instruction. The student has to be drilled in the laboratory and the clinic more than in the lecture room. Methods of mass instruction are no longer possible. We need more instructors and will have to pay them.

"The National Boards give gruelling examinations covering the basic sciences and clinical practices. An applicant for these examinations must have at least four years of hospital training. To fit the members of our resident staff for these, we have been obliged to found what amounts to a new school, wherein is taught anatomy, pathology, applied physiology and medical literature. We have already had many inquiries for physicians in various parts of the State who wish to take this work.

"The matters you have discussed today interest me intensely. The medical students are interested in them. What shall I tell them? Will medicine be socialized in a little while, or what? I have told them that I believe the medical profession is passing through a brief time of trouble, from which it will emerge stronger and better than ever. It is the one profession essential to civilization. It is attracting the best minds in our colleges, and this is the best guarantee that it is not going to pot.

"If doctors will stand together there is no great danger of socialized medicine. I pledge you the support of the Medical School in your efforts to promote the best interests of the profession."

**Dr. C. F. Thompson**, member of the Bureau of Publicity. "In the absence of Dr. Wishard and Dr. Gastineau I have the pleasure to report on the work of the Bureau of Publicity. In the past year, in addition to the furtherance of the 'Indiana plan,' we attempted a brief display at the time of the state meeting, calling the attention of the members of the profession to the difference between propaganda and good medical publicity. In the past few months our Bureau has not been active because, due to the rapid change in the relationship of the public to our profession, we felt that the methods which we had followed up to the middle of 1938 were practically useless in keeping up a campaign of publicity; also because medical publicity has been in the hands of two widely divergent forces, one in Washington, and one in our own ranks. If we can keep in mind the difference between good publicity and propaganda, our work will go on."

#### MEETING FOLLOWING LUNCHEON LEGISLATIVE PROBLEMS

Following discussion by Dr. N. M. Beatty, co-chairman of the Legislative Committee, and Albert Stump, attorney for the State Association, of legislative matters of interest to the State Association at this time, Dr. Clark made the motion that "the Legislative Committee and the attorney for the State Association go over the medical laws of the State of Indiana and make such changes as may be necessary, to be presented to the Legislature at such time as they think desirable." This motion was seconded and carried.

Dr. Clark moved that the Council "instruct the Legislative Committee to foster the bill regulating the sale of barbiturates and their derivatives." This motion was seconded by Dr. Wadsworth and carried.

It was taken by consent that the Council did not wish to foster a compulsory vaccination bill.

#### NEW BUSINESS

1. **The Chairman:** Two matters came up earlier in this meeting, (1) the appointment of a liaison committee with the Township Trustees Association, and (2) the matter of a censorship committee with Will Hays. (It was agreed that problems of indigent relief are individual county society matters which cannot be solved on a statewide scale, therefore a liaison committee would be of no value. It was taken by consent that the censorship of the movies had best be handled as a personal matter with Mr. Hays.)

2. **Coordinator of Information on Socialized Medicine.** Mr. Hendricks explained that Dr. W. U. Kennedy, of Newcastle, as a member of the 1938 Committee on the Study of Health Insurance, had started some work

which was not yet finished, and for that reason he should be given a title under which he might complete this work. Dr. Wadsworth moved that "the Executive Committee decide on a title for Dr. Kennedy." Passed by consent.

3. **The "Indiana Plan."** Motion made by Dr. Clark, seconded, and carried, that \$500 be allowed the Bureau of Publicity with which to continue this work in 1939.

4. **Contract with editor of THE JOURNAL.** Formal contract, prepared by the attorney of the Association, was signed by Dr. Shanklin, editor of THE JOURNAL, and Dr. Austin, chairman of the Council.

#### ELECTIONS FOR 1939

1. **Two members of Executive Committee for 1939.** Dr. Clark moved that Dr. C. A. Nafe and Dr. C. H. McCaskey, the present members, be re-elected for 1939. Motion seconded by Drs. Kennedy and Alexander, and carried.

2. **Chairman of Council.** Upon the motion of Dr. Clark, duly seconded, Dr. M. A. Austin was unanimously re-elected chairman of the Council for 1939.

There being no further business, the meeting was adjourned.

THOMAS A. HENDRICKS,  
*Executive Secretary.*

#### A. M. A. SURVEY (RANDOLPH CO.)

(Continued from Page 145)

There are three health departments and thirteen governmental agencies that arrange for and provide medical services. The Board of Education controls health supervision services in schools below the college level.

Medicines usually are provided for the indigent by the township trustee.

No patients were reported during 1937 as being in need of medical or hospital care who were unable to obtain it. One woman in need of medical care refused services because she would not accept charity.

Four pharmacists reported increases in prescription work during the year; three reported decreases.

The county medical society has an agreed fee bill with the county trustee for the care of the indigent.

### LOCAL SOCIETY REPORTS

#### SOCIETY OFFICERS

The following officers for county societies have been elected for 1939:

#### CASS COUNTY MEDICAL SOCIETY:

President, T. L. Keefe, M.D., Logansport.  
Vice-president, W. K. Newcomb, M.D., Royal Center.  
Secretary-treasurer, Lowell J. Hillis, M.D., Logansport.

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#### DUBOIS COUNTY MEDICAL SOCIETY:

President, H. C. Knapp, M.D., Huntingburg.  
Vice-president, P. J. Blessinger, M.D., Jasper.  
Secretary-treasurer, G. A. Held, M.D., Holland.

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#### JACKSON COUNTY MEDICAL SOCIETY:

President, H. E. Miller, M.D., Seymour.  
Vice-president, G. R. Gillespie, M.D., Brownstown.  
Secretary-treasurer, G. H. Kamman, M.D., Seymour.



**LAGRANCE COUNTY MEDICAL SOCIETY:**

President, Frank Wade, M.D., Howe.  
Vice-president, Harry Erwin, LaGrange.  
Secretary-treasurer, W. O. Hildebrand, M.D., Topeka.

**PERRY COUNTY MEDICAL SOCIETY:**

President, E. E. Schrieler, M.D., Cannelton.  
Vice-president, J. E. Taylor, M.D., Leopold.  
Secretary-treasurer, B. V. Lally, M.D., Tell City.

**REPORTS OF MEETINGS**

**ALLEN COUNTY (FORT WAYNE) MEDICAL SOCIETY** held a dinner meeting January 17th, at the Chamber of Commerce Building. Karl A. Meyer, M.D., of Chicago, Illinois, read a paper on "The Surgical Treatment of Peptic Ulcer." Attendance numbered 64.

The meeting on January 24th was devoted entirely to the business of the society. Fifty-two were present.

On February 7th, the meeting was held at the Methodist Hospital. The program was conducted by the staff. Forty members were present.

**ADAMS COUNTY MEDICAL SOCIETY** held a dinner meeting at the Swiss Cafe, Berne, January 12, with Dr. Harry Rimmer of Duluth, Minn., as the guest speaker.

**CARROLL COUNTY MEDICAL SOCIETY** met at Dr. Brubaker's residence in Flora, Thursday, February 9. Dr. E. O. Asher, of New Augusta, spoke on "Fetal, Maternal and Infant Mortality." Attendance numbered 9.

**DAVIESS-MARTIN COUNTY MEDICAL SOCIETY** held a meeting January 24th in Washington, at which 20 members were present. Dr. F. V. Meriwether and Mr. Victor H. Davison spoke on "Medical Aspects of the Farm Rehabilitation Program." The Society voted to adopt the plan, and appointed an Economic Committee, consisting of Doctors A. G. Blazey, W. O. McKittrick, and E. E. Long. Dr. Blazey was also appointed as custodian of funds.

**DEARBORN-OHIO COUNTY MEDICAL SOCIETY** met at Dr. Jackson's office in Aurora, January 26th. Dr. George Rockwell, Cincinnati, Ohio, read a paper on "Pneumonia." Dr. Rockwell's paper and the discussion included typing of sputum and serum treatment. Attendance numbered seventeen.

**DELAWARE-BLACKFORD COUNTY MEDICAL SOCIETY** elected officers for 1939 at a dinner meeting held January 17th at Hotel Roberts. Dr. W. W. Ayres of Hartford City spoke on "Prevention and Diagnosis of Pneumonia," and Dr. Robert Turner, of Muncie, spoke on "Treatment of Pneumonia." A film on pneumonia was shown. Attendance numbered 38.

The Society sponsored a health exhibit concerning prevention of pneumonia in the Muncie Public Library, January 25, 26 and 27, in cooperation with the Delaware County Federation of Women's Clubs. A series of radio talks on pneumonia were also given.

The meeting on February 14 was held at the Hotel Roberts. Guest speaker was Dr. Samuel H. Sedwitz, of Youngstown, Ohio, who spoke on "Peripheral Vascular Diseases, Diagnosis and Treatment."

**DUBOIS COUNTY MEDICAL SOCIETY** held a meeting February 3, at Jasper, Indiana. Officers were elected for 1939.

**ELKHART COUNTY MEDICAL SOCIETY** held a meeting at Hotel Elkhart, Elkhart, February 2nd. This was a dinner meeting. Dr. A. S. Giordano, of South Bend, spoke on "The Anemias." Several reels of surgical motion pictures were shown. A report of the Secretaries' Conference was made by Dr. S. T. Miller of Elkhart. Fifty-seven were present.

(Continued on Page xxii)

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**FAYETTE-FRANKLIN COUNTY MEDICAL SOCIETY** met at McFarlan Hotel, Connersville, on January 10. Doctors C. L. Rudesill and Clyde Culbertson, of Indianapolis, spoke on "Typing and Serum Treatment of Pneumonia." Attendance numbered sixteen.

**FLOYD COUNTY MEDICAL SOCIETY** held a dinner meeting at New Albany on February 10th. Dr. Kenneth H. Brown of New Albany spoke on "Gonorrhea." Attendance numbered sixteen.

**GIBSON COUNTY MEDICAL SOCIETY** met at the Emerson Hotel, Princeton, on February 13th. Dr. W. R. Cleveland, of Evansville, spoke on "The Therapeutic Indications and Expected Results of Treatment with X-rays and Radium in Cases Appearing in a General Practice." The Society voted against signing health certificates for any one not submitting to having blood drawn for test for lues. Attendance numbered 24.

**GRANT COUNTY MEDICAL SOCIETY** met in the Marine Dining Room of the Hotel Spencer at Marion on January 26th. Dr. Homer Wheeler, of Indianapolis, spoke on "Diseases of the Rectum." A report on the Secretaries' Conference was made. Attendance numbered thirty-two.

**HAMILTON COUNTY MEDICAL SOCIETY** met at Noblesville, January 10. Dr. Roy Lee Smith, of Indianapolis, was the principal speaker. His subject was "Prostatic Glands."

**HENRY COUNTY MEDICAL SOCIETY** held a business meeting at Newcastle January 19th. Attendance numbered twenty.

**HUNTINGTON COUNTY MEDICAL SOCIETY** held a dinner meeting at Hotel LaFontaine, Huntington, February 7th,

with Dr. Charles J. Cooney, of Fort Wayne, as principal speaker. His subject was "Genito-urinary Diseases that May be Treated in the Office." The Society revised fee schedules and passed a resolution against the plan of the Workman's Compensation Law being administered by the state. The Society favors some changes in the present law. Eighteen members and one guest were present.

**JASPER-NEWTON COUNTY MEDICAL SOCIETY** held a dinner meeting in Kentland, on January 26th. Dr. Richard Bayley, of Lafayette, spoke on "Allergic Diseases and Their Treatment." Attendance numbered eighteen.

**JAY COUNTY MEDICAL SOCIETY** met at Portland, February 3. Dr. H. M. Banks, of Indianapolis, spoke on "Interpretation of Laboratory Findings." Attendance numbered twenty.

**KNOX COUNTY MEDICAL SOCIETY** met at the Jewel Cafe, Vincennes, February 14th. Dr. Robert R. Acre, of Evansville, read a paper on "The Differential Diagnosis and Treatment of Pyuria." Fourteen members were present.

**KOSCIUSKO COUNTY MEDICAL SOCIETY** met at Warsaw, February 14. Dr. O. H. Richer, of Warsaw, spoke on "Vitamin B." Attendance numbered ten.

**LAKE COUNTY MEDICAL SOCIETY** members met at St. Margaret's Hospital, February ninth, in Hammond, to honor the memory of Dr. James O. Parramore. Physicians closely identified with Dr. Parramore in his work spoke in tribute to his accomplishments.

Dr. Harold S. Hulbert, of Chicago, was the guest speaker of the meeting.

(Continued on Page xxiv)

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<sup>1</sup>J. A. M. A. 111:2175 (Dec. 10), 1938.

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**LAPORTE COUNTY MEDICAL SOCIETY** held a meeting at the Spaulding Hotel, Michigan City, January 19th. Mr. J. D. O'Meara spoke on "Relationship of Doctor and Patient." A discussion of medico-legal problems followed. Twenty-four were present.

**LAWRENCE COUNTY MEDICAL SOCIETY** held a meeting at the Greystone Hotel, Bedford, February 1st. Dr. H. G. Steinmetz, director District Health Dept. No. 6, spoke on "A Report on Immunization Against Diphtheria and Smallpox." Attendance numbered fourteen.

**MADISON COUNTY MEDICAL SOCIETY** met at St. John's Hospital, Anderson, January 16. Dr. E. Vernon Hahn, of Indianapolis, spoke on "Indications for Surgical Intervention After a Head Injury." Members of the Madison County Dental Society attended the lecture.

**MARION COUNTY (INDIANAPOLIS) MEDICAL SOCIETY** met February 7 at the Indianapolis Athletic Club. Dr. Bennett Kraft presented a paper on "Pitfalls in the Diagnosis and Treatment of Clinical Allergy." Discussants were Doctors Kent Leasure, John Greist, Eric Dalton and C. B. Bohner.

At the February 14th meeting Dr. Andrew C. Ivy and Prof. Nathan Smith Davis, Prof. of Physiology and Prof. Nathan Smith Davis, Northwestern Medical School, spoke on "The Practical Application of the Newer Concepts of the Physiology of the Digestive System."

**MIAMI COUNTY MEDICAL SOCIETY** held a meeting at Dukes Miami County Hospital, Peru, January 27th. Dr. Samuel J. Ferrara, of Peru, showed a picture on "Edema—Cardiac and Renal." Mr. Laycock quoted prices on a movie projector for the Society and displayed a projector. Mr. Bowers, of the Welfare Department, explained the purpose of a clinic for crippled children to be established in the County with the consent of the Society.

**MONTGOMERY COUNTY MEDICAL SOCIETY** met at Culver Hospital, Crawfordsville, January 19th. Dr. Frank Ramsey, of Indianapolis, spoke on "Cancer of the Colon." Twenty-two were present.

**THE NORTHEASTERN INDIANA ACADEMY OF MEDICINE** met at the Kendall Hotel, Kendallville, January 26th for a dinner meeting, at which the ladies were entertained. Travel movies were shown by Dr. Ben Linvill, Columbia City.

**PARKE-VERMILLION COUNTY MEDICAL SOCIETY** held a dinner meeting at the Vermillion County Hospital January 18. Dr. Wemple Dodds, Crawfordsville, presented a paper on "Pneumonia—Laboratory Findings and Serum Treatment." Attendance numbered 13.

**PERRY COUNTY MEDICAL SOCIETY** met in Tell City on January 20. Officers for 1939 were elected. Attendance numbered six.

**PORTER COUNTY MEDICAL SOCIETY** met at Hotel Lembke, Valparaiso, January 31st. This was a dinner meeting. Dr. Leo G. Latz, Chicago, Illinois, spoke on "Rhythm Theory of Fertility and Sterility in Women." Attendance numbered fourteen.

**PUTNAM COUNTY MEDICAL SOCIETY** held a meeting in Greencastle, February 9th. Dr. L. H. Gilman, of Indianapolis, spoke on "The Mind Takes a Holiday." Attendance numbered twelve.

**RUSH COUNTY MEDICAL SOCIETY** held their regular monthly dinner meeting February 9 at the Lollis Hotel. Dr. W. P. Morton, of Indianapolis, was the guest speaker.

**ST. JOSEPH COUNTY MEDICAL SOCIETY** held a dinner meeting February 8th at the Jefferson Plaza. Dr. John E. Dalton, of Indianapolis, presented a paper on "Syphilis in Pregnancy." A plan for establishing a local Public Welfare Psychiatric Clinic was presented. Attendance numbered forty-five.

At the meeting on February 14, which was held in the Columbia Club, Dr. R. C. Crowell, Detroit, Michigan, presented a paper on "Treatment of Gonorrhea in the Male." Sulfanilamide treatment was outlined. Thirty-six were present.

**TIPPECANOE COUNTY MEDICAL SOCIETY** met at Lincoln Lodge, Lafayette, February 14. Dr. E. E. Padgett, of Indianapolis, read a paper on "Cancer of the Stomach," and Dr. Mason Light, of Indianapolis, presented a paper on "The Value of the Gastroscope." Attendance numbered forty.

**WABASH COUNTY MEDICAL SOCIETY** was entertained at dinner by Dr. F. M. Whisler, of Wabash, in celebration of his twenty-fifth anniversary of practicing medicine in Wabash. A round table discussion of state medicine was held. Seventeen members were present.

**WAYNE-UNION COUNTY MEDICAL SOCIETY** met at the Richmond-Leland Hotel, Richmond, February 9th. Dr. Beatrice Tucker, of the Chicago Maternity Center, presented a paper on "Eclampsia." Films on eclampsia were shown, also. Attendance numbered twenty-eight.

**WHITLEY COUNTY MEDICAL SOCIETY** met at Columbia City, January 10. Dr. B. S. Cornell, of Fort Wayne, presented a paper on "Pneumonia." The Society has completed immunization of school and pre-school children against diphtheria and smallpox. Attendance numbered eight.



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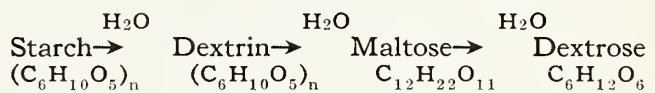
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# BOOKS

## BOOKS RECEIVED:

**SURGICAL PATHOLOGY OF THE DISEASES OF THE MOUTH AND JAWS.** By Arthur E. Hertzler, M.D., Surgeon to the Agnes Hertzler Memorial Hospital, Halstead, Kansas. 248 pages. 206 illustrations. J. B. Lippincott Co., Philadelphia, Pa., 1938. Cloth. Price \$5.00.

\* \* \*

**THE 1938 YEAR BOOK OF GENERAL MEDICINE.** Edited by George F. Dick, M.D., et al. 840 pages, 180 illustrations. The Year Book Publishers. Chicago, 1938. Cloth. Price \$3.00.

## BOOK REVIEWS

**CABOT'S PHYSICAL DIAGNOSIS.** By Richard C. Cabot, M.D., Professor of Clinical Medicine Emeritus in Harvard University, and F. Dennette Adams, M.D., instructor in Medicine in the Harvard Medical School, Courses for Graduates. New Twelfth Edition, entirely revised and rewritten. All new illustrations. Fifty per cent more material. 846 pages, with 390 illustrations. Cloth. William Wood and Co., Baltimore, Md., 1938. Price \$5.00.

There is perhaps no better criterion of the advances made in the art of physical diagnosis than the perennial revision of Cabot's text-book. The first edition in 1900 was true to the traditions of Laennec and Auenbrugger, and each succeeding edition has incorporated all that is new, including the many mechanical devices that are now employed as aids in diagnosis, such as the ophthalmoscope, x-ray, and electrocardiograph. The diagrams and illustrations are excellent. The first chapter of some twenty-odd pages, on taking and recording the patient's history, is particularly worth while. And what is quite important, the book of nearly 900 pages is only \$5.

**PROCEEDINGS OF THE NINETEENTH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR THE HARD OF HEARING.** The American Society for the Hard of Hearing. Washington, D.C. Paper bound. 146 pp. \$1.00.

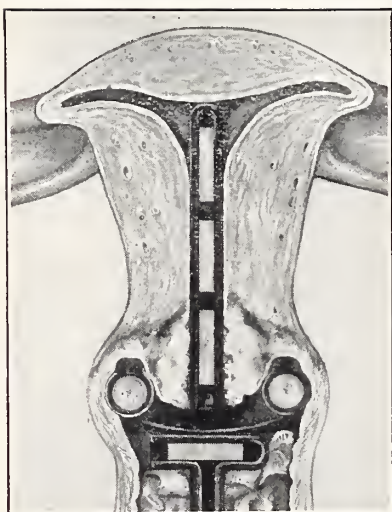
Of particular interest to the readers of this magazine are the papers given at the Scientific Session, the session on the hard of hearing child, and at the Teachers' Council.

That much progress is being made in the attempt to fit hearing aids to individuals is recognized by well informed otologists and general practitioners. Considerable time was devoted to this subject at the scientific session. "Progress in the Management of Deafness," "Recent Progress in the Physics of Hearing," and information about the so-called "window" operation make this section of the book of great value to all those interested in the problems of the hard of hearing. The authors of all papers presented at the scientific session speak with authority. They include: Kenneth M. Day, M.D., Pittsburgh; Fred W. Dixon, M.D., and C. W. Engler, M.D., Cleveland; Austin A. Hayden, M.D., Chicago; Harris M. Vail, M.D., Cincinnati; and John C. Steinberg, Physicist, Bell Telephone Laboratories. Edmund Prince Fowler, M.D., New York City, expressed his views on the inheritance of deafness and on advances in otology.

The papers on the hard of hearing child deal with his educational and medical needs and give the latest statistics as to the incidence of deafness. Reports of state and city projects for the conservation of hearing round out the session.

The Proceedings constitute a veritable book of information dealing with problems of a large but long-neglected group of American citizens of all ages—the children, young people, and adults whose hearing is below normal.

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### CANCER OF THE BREAST\*

FRANK E. ADAIR, M.D.†

NEW YORK CITY

Cancer attacks man at all ages, but as a rule it pounces on him at the height of his career, at a time when he is of most value to the country, the family, and the community.

In the United States, cancer takes an annual toll of approximately 150,000 lives. This represents slightly less than one-third of those living with the disease at any one time. In other words, practically a half-million people in the United States are living today with cancer.

It seems to be agreed by those authorities most competent to judge that cancer is increasing at a rate of about two per cent annually. It is superseded only by heart disease in our national death rate. In Switzerland, cancer takes more lives than any other disease, even heart disease. A report of the New York State Department of Health for the month of November, 1938, has just been issued. It gives 146.9 as the annual deaths per hundred thousand for cancer in New York State, showing that almost every year this state climbs higher in its cancer death rate. In 1938, of the 73,775 deaths from all causes in New York City, 11,150 were due to cancer. During the year 1938, Thomas Duffield reports that just over fifteen percent (or one of every seven) of the total deaths in New York City were due to cancer. This number and proportion are appalling! If one were to exclude deaths from infancy and childhood diseases, it would give about one death in every five for adult life in New York City. And if one breaks down the figures still further, he finds that one in every four deaths among women between the ages of 35 and 60 years is due to cancer. Cancer is the chief cause of death for women between the ages of 35 and 60 years.

Of all the types of cancer, breast cancer is the

one which is most rapidly increasing in New York City. Reports of cancer of the stomach would indicate that it is decreasing. Duffield suggests that probably this may represent that metastatic disease to the abdomen, which is usually attributed to cancer of the stomach, is today more competently diagnosed and correctly attributed to cancer of the breast with metastases to the liver and abdomen.

Every informed physician today, although somewhat pessimistic about improving the diagnosis as well as the treatment of internal cancers, is highly optimistic about what is being accomplished along the lines of earlier recognition and better treatment of the accessible cancers. It is along these lines that we physicians must place the most emphasis at present, because our efforts will there bear richer fruits. There seems to me little reason why we cannot save 25,000 more lives annually in the accessible group than we are now doing if we use the means of education, diagnosis, and treatment which are at present available to us.

In a study of patients with breast cancer made by Estabrook at Memorial Hospital, New York City, it was found that 30% of the patients saw the physician within two weeks after first discovering any sign or symptom; but 33% did not see him until after three months had elapsed; and approximately 20% did not see a doctor until six months had passed. Early recognition and prompt treatment are the chief factors in the cure of breast cancer, and the fact that 53% of the breast cases did not come early is probably the most important single factor in our failures.

#### HEREDITY

It is commonly held that cancer is not an inheritable disease. That is generally true; however, there are a few exceptions. Malignant tumors of the nervous system, such as neurofibroma and neurogenic sarcoma, are frequently hereditary,

† Attending Surgeon, Memorial Hospital.

\* Presented before the annual session of the Indiana State Medical Association at Indianapolis, October 5, 1938. Manuscript revised and brought up to date before publication.

particularly in the Italian race. It is common to find that one parent has stigmata of nerve tumor; we always look for it in the parents and usually find it.

It is also true that one is constantly impressed with the frequency of the presence of breast carcinoma in both mother and daughter. And it is also common to find carcinoma present in several sisters.

Wassink has found that there is more correlation in cancer of the breast between a parent and a female descendant than in any other location in the human body.

Little states there is no evidence in the human that ancestry of the male parent can influence the female descendant as far as breast cancer is concerned. These facts correspond with what is true in mice.

It is impossible to explain why it is so common for sisters or mother and daughter to develop mammary carcinoma. Identical anatomical types of breast are very common in these circumstances. I have seen three generations of females with excessively long and pendulous breasts, and found not one female member of the family to possess a different type. In all probability there are many minute microscopic anatomical points in common in such breasts.

It is generally conceded that the effect of estrogenic hormones on the breast is probably the most important single known factor influencing the production of mammary carcinoma. It is probable that the daughter may be subject to similar deviations from the normal hormone influences that produced the breast cancer in the mother.

"The tendency of cancers (mice) to form in a definite organ or tissue may be accentuated by environmental conditions. For example, mammary gland tumor rate in mice may be increased by intensive breeding, by mammary duct blockage, or by excessive doses of theelin." . . . (Fundamental Cancer Research, Public Health Report No. 2008, Dec. 2, 1938.)

In the human, it would appear that certain of these factors play a role of great importance in the production of mammary cancer. In our clinical study of 200 consecutive cases of breast cancer, in a search for etiology, certain factors seem to stand out conspicuously, such as breast stasis with its resulting chronic irritation. It was due to any one of, or a combination of, the following conditions: malfunction, due to not nursing the child, miscarriages, a rapid succession of child-births, or the non-establishment of breast function (old maid's) stenosis at the nipple, etc.

To any student of the subject, it is obvious that no single factor explains fully the production of breast cancer. The environmental conditions are striking; but the chromosomatic influence must still be considered very important. The studies of Wainwright and also of Lane-Clopton point out

the greater incidence of mammary cancer in certain families.

#### DIAGNOSIS

It is my firm belief that there is one opportunity of the greatest importance in the field of breast cancer which is being neglected, namely, self-examination. Because it is such a common disease, women should make periodic examinations of their own breasts. They should learn to palpate their own breasts in search for lumps. Furthermore, they should be taught that it is their obligation to intelligent health practices to observe the contour of the breast in the mirror. Every intelligent woman can detect differences in contour and size. She can note, also, flattening or retraction, nipple discharge and skin attachment. Women should act promptly on any discovery. If women are taught that it is their job (instead of the doctor's job) to find breast lumps, we will get our breast cases much earlier than at present.

As only about four per cent of the American people go to the doctor for an annual physical examination, it is of paramount importance that the public as a whole become educated on the subject of cancer, so that when they see a lump, or have a sore, or have any of the signs of cancer, they will immediately go to see their doctor. The most important single factor in early diagnosis is an enlightened public.

That cancer education is catching hold is proved by the fact that the patient is presenting herself earlier than in the past, and brings a tumor which is smaller, and one which has not yet developed the ordinary signs generally recognized as characteristic of cancer. This means that the difficulties of arriving at a correct diagnosis are increasing year by year.

I think that probably the earliest single sign of cancer of the breast is (1) a delicate skin attachment. One must give consideration to the (2) age of the patient. Any woman twenty years of age or over is a candidate. (3) The solitariness of the lump is important. But few cases have multiple foci recognized clinically. (4) Hardness is also important—this is not so easily made out if the tumor is situated in the center of the breast. In the cancer subject the physician gets much assistance from the characteristic stony hardness. (5) Defective contour or deformity is noted when compared with the opposite breast. (6) A loss of subcutaneous fat may be evidenced by a shallow depression over the tumor. (7) Nipple retraction is noted in many cases, particularly if the tumor lies within the zone of the terminal ducts and areola. (8) Peau d'orange appearance characterizes two conditions, namely: edema of the breast secondary to metastatic disease in the axilla, and also edema which accompanies one variety of mammary carcinoma—"diffuse duct carcinoma." (9) Bleeding from the nipple sometimes characterizes cancer. In approximately half of the cases of bleeding nipple, cancer is found, and it is



usually papillary cyst adenocarcinoma. (10) Ulceration of the nipple is found in Paget's Disease. (11) Redness, localized elevation of the skin temperature, and an erysipelas appearance characterize "inflammatory carcinoma." (12) Irregularity of the tumor. A smooth surface does not characterize mammary carcinoma. Frequently there are bossae covering the tumor, demonstrating that it is growing centrifugally at different rates as it meets differing degrees of resistance. (13) The lump is painless in 93% of breast cancers. (14) There may be elevation of the entire breast.

No case will present all the above signs. As a rule, there is a mixture of signs denoting signs both of benign and malignant tumors. One must balance the group of positive signs against the group of negative signs and then lean heavily on actual experience in this field. Although Ewing's original suggestion of transillumination as an aid to diagnosis has been over-emphasized, it is a very valuable sign. And the value of this procedure grows with one's experience.

As the breast lumps decrease in size, just in that proportion does biopsy become necessary. In our work at the Memorial Hospital we most commonly employ the aspiration biopsy in breast tumors. It is a simple procedure, expeditious and satisfactory in the hands of a group constantly employing it. If one chooses some other type of biopsy, I prefer the total extirpation of the tumor, with a frozen section immediately obtained. Cutting directly into the cancer itself for a biopsy is an undesirable procedure, as it opens up large lymph and blood vessels for the cancer cells immediately to enter.

#### TREATMENT

The universal treatment of mammary carcinoma is the radical amputation. Irradiation therapy is making forward strides at as fast a pace as is compatible with safety. It takes a number of years of study to be able to compare the results of irradiation therapy with surgery. More time will be required to solve this difficult problem.

## MODERN CONCEPTS IN THE TREATMENT OF CANCER\*

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SOUTH BEND

Although the treatment of cancer in its various forms and locations in the human body follows no definite and concrete rules, there are certain general principles which are well accepted in the various cancer centers throughout the world. Some are recent developments; others are not. Many are controversial, but this holds in all types of medical treatment and, therefore, it is necessary to follow the most widely accepted views on the subject. As time goes on and statistics accumulate, these opinions may change entirely, but until experience proves otherwise, it is felt that these general principles should be followed.

We are still entirely ignorant as to the specific cause of cancer in general and as yet have failed to find a universal cure. One of the most interesting new developments as to the cause of cancer has been the investigation of carcinogenic substances, especially those having some relationship to the hormonal secretions of the human body. It is a fact that estrin, one of the ovarian hormones, is closely related in chemical structure to some of the hydrocarbon chemicals which have been definitely proved to be carcinogenic. We also know that there is some relationship between the development of mammary cancer and the estrogenic hormone in lower animals, but it has not been shown that this same relationship applies in humans. We have observed, however, the rapid development of a

carcinoma of the breast in a pregnant woman, how malignant it is in a younger woman, and that suppression of ovarian function lowers the rate of its growth and delays metastasis.

It has been possible to regulate the growth of malignant tissue in mice by regulating the content of amino-acid in the diet, but this, too, has proved to be untrue in cancer of humans.

As yet the only definitely valuable serological test for diagnosis of cancer has been the Zondek<sup>1</sup> test which applies only to cases of chorio-epithelioma and to certain testicular tumors. However, the reported results with this test have not been sufficiently uniform to be entirely convincing.

In the field of treatment of malignancy, irradiation, surgery, and certain methods of chemical destruction are still the only hope of cure. The various serums and synthetic radioactive substances brought forth from time to time have proven failures. Warren<sup>2</sup> has shown in experimental animals that by applying deep heat to the tumor simultaneously with the x-ray treatment, the resolution took place much faster. However, this interesting observation must await clinical proof. Perhaps the greatest advance in treatment has been along the line of refinement in technique in applying radiation. Since fractionated daily doses extended over a long period of time were introduced

<sup>1</sup> Zondek, B.: *J.A.M.A.* 108:607-611, Feb. 20, 1937.

\* Presented before the St. Joseph County Medical Society, January 25, 1938.

<sup>2</sup> Warren, S. L.: *Amer. J. Roent.* 36:983-986, December, 1936.

by Coutard, the results obtained by irradiation treatment have been markedly improved. This is especially notable in tumors about the head and neck. The results here have been so good that irradiation is now the treatment of choice in cancer of the larynx, pharynx and tonsils. This technique has also proven its value in x-ray therapy in general. No longer do we give large doses of x-ray spaced at intervals of every second or third day. Smaller doses given daily, using as many ports of entry as possible, and extended over periods of several weeks, have given results never obtainable with the older techniques. We now follow at least a modified Coutard technic in all deep x-ray therapy.

Coutard<sup>3</sup> now offers another proposal which has not been fully accepted as yet. He believes that the cancer cell has definite regularly spaced periods of activity with rest periods between. Whether or not this is true remains to be proved.

In the last six years super-voltage x-ray apparatus has been developed very rapidly and has become available at a much more moderate cost, and there are now many units in use throughout the country. However, it is still to be proved that irradiation from ultra high voltage x-ray apparatus is clinically more effective than therapy carried out with the present universal type of high voltage apparatus of 200 kv., nor has experience borne out the assumption by some workers that extra high voltage x-rays have a selective action against cancer. The depth dose increases very rapidly up to 200 kv., but above this level, the amount of x-ray that reaches all parts of a given tumor is very little different at 200 kv. or 400 kv. and above. This is well summarized by Kaplan<sup>4</sup> in the introduction of the 1937 Year Book of Radiology. He states, "Supervoltage x-ray therapy, notwithstanding its widely heralded theoretical advantages, is still to be proved of sufficient value to warrant its more universal use and the enormous expenditure required for its installation. Reports emanating currently from clinics where this form of therapy is employed, leave its value still within the realm of conjecture."

The value of the use of preoperative x-ray has become more widely recognized in the past two years. Not only does this treatment shrink the tumor mass and make operation easier, but the danger of metastasis is lessened. This will be discussed further as the treatment of specific malignancies is taken up.

The use of irradiation for palliative purposes only in advanced cancer is not appreciated and used as much as it should be. Much can be done to increase the comfort and prolong the lives of these unfortunate individuals. It is human instinct for a normal person to want to live as long as possible, yet we often encounter this psychology with doctors when they learn a lesion is beyond

hope of permanent cure: "What is the use, he or she is going to die anyway." This attitude is not taken in the treatment of severe heart disease, nephritis, meningitis, and other fatal illnesses, but yet some are prone to do so in the case of advanced malignancy. It is a common experience to see patients bedridden with bone metastasis and suffering severe pain, put up on their feet again and made comfortable. The improvement which takes place in an advanced cancer case following moderate irradiation therapy is often surprising and these patients are certainly entitled to all the help they can obtain.

In the care of cancer patients, radiologists or surgeons must not become over enthusiastic as to the value of a particular form of treatment. In other words we must not feel that irradiation alone or surgery alone is the only way cancer should be treated. We must be honest with ourselves and with the patient; consider the problem from every angle and make our final decision on what is best in each particular case. Every patient with cancer is an individual problem. The line of attack should be determined by a consultation between the attending surgeon, the radiologist, and the pathologist. It is doubtful that any one of us is capable of determining alone what is best for every patient. The economic status, age as to life expectancy, type of lesion, both clinically and microscopically, are only some of the factors which must be considered in every instance. When this attitude is taken by all concerned in the care of cancer patients, our progress will be more rapid and our cures more numerous.

At the present time, the general surgical opinion in regard to cancer is that when the tumor is movable and does not show evidences of clinical metastasis, it should be surgically removed. In other words we consider only technical operability. We are now recognizing another and an equally important factor which is the biologic operability. By this we mean the tendency of the primary tumor to early cell multiplication—in other words the degree of malignancy. Clinically we can detect this in the following manner—when the cells show no differentiation, the tumor is freely movable, and developing on a loose fibrous base not fixed to bone or cartilage, it is usually a very radiosensitive growth and has a greater possibility of being cured by radiation. In this type of case there are already isolated tumor cells in the lymphatics surrounding the primary lesion, if not gross metastasis and, if operated upon, rapid cellular dissemination takes place with early death.

Cancers consisting of more completely differentiated cells developing on fibrosclerotic connective tissue are the types generally incurable by radiation and, if technically operable, should be excised. These tumors grow very slowly, and tend to metastasize late.

Between these two extremes we have a very large intervening group of cancers in which the estimation of radiosensitivity and operability is

<sup>3</sup> Coutard, H.: Graduate Course, Michael Reese Hospital, Chicago, September, 1936.

<sup>4</sup> Kaplan, I. I.: Yearbook of Radiology, p. 282, 1937.



very difficult. It is in this group that the association of radiation and surgery is useful and the employment of preoperative radiation is particularly effective.

The principal effect of radiation is the destruction of young undifferentiated and rapidly multiplying tumor cells. It has much less effect on the older more adult cells which multiply slowly. Usually there is an association of these two types of cells in a tumor and by irradiating before any operative procedure is attempted, the younger more dangerous cells are destroyed and the older ones are surrounded by fibrous tissue giving the surgeon more security and there is less danger of dissemination of the tumor cells. By preoperative radiation one can identify the biological operability of a tumor. The microscopic grading of tumors, while helpful, is no unfailing criterion as to how the tumor will respond to radiation. Sometimes Grade I, supposedly very resistant, will respond well to radiation while one of the more malignant types will respond poorly. The trial test of radiation is the final word. If, for example, in cancer of the breast by the fifteenth day after starting treatment, the tumor is appreciably reduced, we know we are dealing with a radiosensitive type and one in which it would have been dangerous to operate upon immediately. In this type, the course of radiation should be carried to completion. However, if at the end of three weeks there is no appreciable reduction in the size of the tumor, it is best to proceed with surgery immediately without further radiation. Frequently a tumor which is technically inoperable because of size and fixation will become reduced in size, free and resectable following preoperative radiation.

In what way, then, does the foregoing discussion apply to actual types of malignancy? One of the most difficult and at the same time most discouraging problems which confront us in the field of malignancy is carcinoma of the breast. The most widely accepted practice in the treatment of this tumor today, if operable, is radical resection with postoperative radiation. However, before any surgical procedure is done on a patient with cancer of the breast, the presence of lung and bone metastasis must be ruled out by x-ray examination. If the disease has gone beyond operable limits, radiation is employed for palliation to reduce the size of the tumor and relieve the pain from bony metastasis with satisfactory results. We realize, however, that our attack on the problem has been far from satisfactory.

Coutard<sup>5</sup> of France and Adair<sup>6</sup> of Memorial Hospital, New York, now feel that our five year cures can be improved by preoperative irradiation followed by radical mastectomy in all cases in which the tumor does not disappear entirely by irradiation. About 20 percent of breast tumors are very radiosensitive and will entirely disappear or show marked reduction in size. Sixty percent

show moderate reduction and must then be excised, and the other 20 percent will show little or no response to radiation. Usually anaplastic carcinoma completely disappears while colloid cancer changes very little in size. At Memorial Hospital all malignant breast tumors are irradiated preoperatively with a heavy dose of 2100 r units to each of five fields, wait from six to eight weeks, and then do a very careful radical mastectomy. They still do not feel that we are safe in doing a simple mastectomy or relying on radiation alone. The diagnosis of malignancy is made by doing a punch biopsy. Coutard believes the biological inoperable tumors should never be operated upon but that those which are technically and biologically operable should by preference be operated upon as a rule after external irradiation. It is generally believed that in any combination of radiation and surgery, it is more efficacious to precede rather than follow surgery by irradiation. If it becomes necessary to give postoperative irradiation, it should be started as soon as the healing takes place or about the twentieth day, while the tumor cells show some degree of postoperative neoplastic activity and before fibrosis and sclerosis takes place. The purpose of postoperative radiation theoretically is to kill the cells which may have escaped the surgeon's knife.

Menstruation is conceded to have a very deleterious effect on a young woman with breast cancer. During each menstrual period the folliculin output from the ovaries has a profound effect on the duct tissue of the breast which is manifested by (a) marked proliferation of the duct cells (b) lengthening of the ducts and (c) multiplication of acini. It is also thought that it has the same effect on the cancer cells. For this reason it is now almost routine to advise a young patient with cancer of the breast to subject herself to irradiation sterilization of the ovaries, especially if she is pregnant at the time, has had a recent pregnancy, or is under 35 years of age.

The treatment of choice in carcinoma of the cervix is now almost universally recognized to be radiation. The only cases in which surgery might be considered are type one in which the lesion is confined entirely to the cervix, and these are very few in number. At the Curie Institute in Paris, the five year cures in types one and two, treated radiologically, are 60 percent with no operative mortality while in the same types of cases treated surgically, the five year cures are only 31 percent with a primary surgical mortality of 7 percent in type one and 36 percent in type two. These cases should all have a heavy dose of highly filtered radium, carefully applied directly to the cervix in two or three sittings, and this should always be combined with a thorough course of high voltage x-ray to the parametrial structures.

In carcinoma of the corpus uteri, the commonly accepted method of attack today is surgical excision followed by deep x-ray therapy and this has given fairly satisfactory results. However, the value of

<sup>5</sup> Coutard, H.: *Ann. of Surg.* 106:584-596, Oct., 1937.

<sup>6</sup> Adair, F. E.: *Amer. J. Roent.*, 35:359-370, Mar., 1936.

preoperative radiation has been recognized here also and in most cancer centers the patients are now given a thorough course of either external radiation or radium internally followed in about six weeks by a hysterectomy. In this way it is felt there is less danger of spilling viable tumor cells into the peritoneal cavity at operation. In poor surgical risks such as the elderly, obese, or in those patients with complicating conditions, radiation alone yields good results.

Cancers of the ovary are usually very radiosensitive and radiation is of great value. Taking all types of cancer of the ovary including those with peritoneal implants and other metastasis, the series at the University of Minnesota shows about 30 per cent five year survivals.

Most malignant tumors of the ovary are not diagnosed as such preoperatively unless there is ascites and other signs of metastasis. Thus the preliminary treatment will usually be surgical followed by postoperative radiation. If, however, the examiner feels fairly certain that the tumor is malignant, preoperative radiation should be administered. Many of these tumors will be markedly reduced in size and much more safely removed. These patients should have two courses of postoperative radiation at three or four month intervals.

The results of treatment of cancer of the vulva and penis are disappointing. The local lymphatics are involved early and it is almost impossible to do a satisfactory radical removal, which has been the common method of treatment. If done properly, the operation is so mutilating and the results so discouraging that the advisability of doing it is questionable. Except in very early localized lesions, none are cured. These early lesions are probably best treated by either x-ray or radium to the local lesion with high voltage x-ray to the pelvic glands if they are clinically involved.

Embryonal tumors of the kidneys in children should always be treated radiologically and are very radiosensitive. They rarely can or should be removed. The question of the proper approach to the treatment of tumors of the adult kidney is now being debated. It would seem, however, and it is the opinion of most urologists that all of these tumors should have preoperative radiation, followed by surgical removal if possible and postoperative radiation. The rationality for the preoperative radiation, as explained previously, is that it lessens the danger of metastasis during removal, reduces the size of the tumor and simplifies the operation. Adenocarcinomas or the so-called hypernephromas are radiosensitive, while the papillary carcinomas and malignant papilocystadenomas are usually radioresistant.

Carcinomas of the urinary bladder are not as hopeless as was formerly thought. The Mayo Clinic series shows a five year survival rate of 28 per cent, including early and late cases. The treatment of choice is preoperative radiation. At the end of about six weeks, the remaining malignant tissue should be coagulated or, if possible, excised. At

this time it is good practice to imbed radon implants in the base of the tumor-bearing area.

If it were possible to detect cancer of the prostate in its early stages the cure of this disease would be relatively simple, but practically the only cancers of the prostate which are treated in early stages are those which are found accidentally following prostatectomy for benign hypertrophy. However, more cases will be detected early when every physical examination in a man over fifty includes a digital examination of the prostate. A large percentage of them can be diagnosed in this manner. Barringer<sup>7</sup> reports a series of 351 cases of prostatic cancer only 4.5 per cent of which were small and could be classified as early. Only 8 per cent of his series are well after 3 to 17 years. When the diagnosis of cancer of the prostate is made it is usually beyond any cure and the simplest approach to the problem is the best. This is implantation of radium into the gland, either suprapubically or perineally, followed by heavy external radiation. If there is urinary obstruction this should be relieved by the electric cautery. Pain from bone metastasis can be relieved by moderate doses of x-ray. The percentage of cures in any event will be very small as the tumor is generally radioresistant.

The high degree of malignancy of testicular tumors and their relative radiosensitivity makes the employment of radiation in their treatment most logical. Probably the best procedure is preoperative radiation to the local lesion, and orchectomy in about four weeks, followed by postoperative radiation to the local, inguinal, and abdominal lymphatics. Memorial Hospital statistics show that those cases in their series which had preoperative radiation followed by orchectomy had a 78 per cent five year survival while those that had orchectomy followed by postoperative radiation showed only 42 per cent five year survival. The determination of the urinary hormone secretion is very valuable in determining the results of therapy as well as whether or not there are metastases and should be followed more closely in testicular teratomas, chorio-epitheliomas, and certain ovarian tumors.

Cancer of the skin is our brightest spot in cancer therapy and the results with either radiation or surgery are good. If treated early, the cure ratio should be about 96 per cent. The advantages of radiation over surgery are: (1) Minimum loss of tissue and deforming scars; (2) The patient can be treated with no loss of time or disability; (3) The results are just as good.

If the lesion involves cartilage, electro-coagulation should be used as cartilage is very radioresistant and necrosis is common because of poor blood supply. Melanomas are radioresistant and should be widely excised, although the results are poor unless done very early.

Carcinoma of the lip may be treated by radiation

<sup>7</sup> Barringer, B. S.: *Ann. of Surg.* XCIII, 326-336, Jan., 1931.



therapy alone, by surgery alone, or by a combination of both. The results of treatment with radiation alone are just as good as with surgery alone and in the early, smaller lesions where the cosmetic result is a factor of importance, radiation therapy is of particular value. At the present time nearly all cancers of the lip are treated by x-ray or radium or a combination of both with very good results. This type of cancer is nearly always very radiosensitive and easy to cure if treated properly. The question of whether or not a neck dissection should be done following the treatment of the local lesion is debatable. In the series of cancers of the lip at the University of Minnesota, only 23 per cent in the primary group with palpable cervical glands were proved to have glandular involvement at operation, while only 4 per cent in those cases without palpable nodes showed involvement. Thus the logical procedure in these cases is to treat the primary lesion radiologically and if there are palpable neck glands on one side, do a careful block dissection of the involved side of the neck six weeks after the treatment to the lip lesion, and follow by x-ray externally to the neck if the nodes are carcinomatous. If there is no palpable involvement of the cervical glands, treat the primary lesion only and do nothing to the neck glands.

In general, malignancy of the head is a radiological problem and its treatment by this method has been relatively successful. If surgical treatment is attempted it must be radical and skillfully done. Carcinoma of the tongue is usually advanced when first seen because of its rapid growth and, therefore, the results of treatment are poor except in the early cases. Interstitial radiation is the treatment of choice in nearly all cases.

In carcinoma of the alveolar process and cheek, interstitial radiation with radon or the element is usually used. If the mandible is involved, this should be resected. Malignancy of the antrum should first receive a heavy dose of deep x-ray therapy followed in six weeks by a wide surgical exposure of the antrum and a thorough electro-surgical destruction of the tumor followed by the insertion of radium element into the sinus cavity.

In carcinoma of the larynx and pharynx, the fractional method of radiation, as advanced by Coutard, has produced very good results and they have reported a relatively high cure rate even in advanced cases. The surgical approach to malignancy in these areas is difficult and the results are not as good as from radiation. The lympho-epitheliomas of this region are very fast-growing tumors which are characterized by a very small primary tumor with massive metastasis. These tumors are one of the most radiosensitive types of all and if treated thoroughly they show a high percentage of cure.

Carcinoma of the lung is showing a definite increase in incidence and thus far the results of treatment are very disappointing. A few successful attempts at surgical extirpation have been reported but the procedure is exceedingly dangerous

and of great technical difficulty. Therefore, treatment of this condition usually falls in the realm of the radiologist and thus far there have been no authentic cures reported. Palliation is variable, depending on the degree of radiosensitivity of the tumor. Some patients are relieved of symptoms and are made comfortable for some time while others show little response.

We all know that the various lymphatic tumors and the chronic leukemias fall within the realm of the radiologist entirely and that although there is no cure for these diseases, these patients are made comfortable for many years through well planned radiation. The discussion of bone tumors will not be entered into in this paper.

Radiation therapy as a major weapon of attack in malignancy of the gastro-intestinal tract has been a dismal failure. With the exception of the rare lymphatic tumors, all malignant lesions from the esophagus to the rectum are very radioresistant and, therefore, the treatment is primarily surgical. Occasionally, through carefully planned and thoroughly administered x-ray or radium treatment, a supposedly inoperable lesion of the rectum or colon can be made operable and successfully resected. Pack has shown that about 10 per cent of stomach cancers respond well to radiation but severe radiation sickness is usually encountered in treating these cases. Other than this the use of radiology in this field is merely palliative and only used to ease the mind of a failing patient or anxious relative when it is felt that something should be done.

As mentioned in the beginning of this paper, many of the ideas suggested are controversial and as time goes on may change entirely, but at the present time they seem to be the most widely accepted views on the subject.

In conclusion the following points are emphasized:

1. That preoperative radiation is more valuable than postoperative radiation although postoperative radiation should not be discarded.
2. That although a tumor may be technically operable, it may not be biologically operable. Both points should be taken into consideration before treatment is decided upon.
3. The generally accepted method of treatment of the various types of carcinoma is briefly given.
4. That through closer cooperation between the surgeon, radiologist, and pathologist in planning the proper treatment for a given cancer patient, better results should be obtained.

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## SURGICAL TREATMENT OF CANCER OF THE PELVIC COLON\*

MURRAY N. HADLEY, M.D.

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In contrast to cancerous lesions in other organs of the body, the treatment of cancer of the gastro-intestinal tract has remained a surgical problem. X-ray or radium therapy, either alone or as an adjunct to surgery, is used in treating cancer of all other organs, but it cannot be relied upon for treatment of such lesions in the gastro-intestinal tract.

The term "pelvic colon" is used to describe that part of the distal large bowel between the lowermost peritoneal reflection and the anal orifice. It includes that portion of the bowel usually referred to as the anal canal, the rectum and rectosigmoid, and it is not covered by a layer of peritoneum.

Cancer may occur at any point in the pelvic colon, in the anal canal, the rectum proper or at the rectosigmoid junction. It is generally agreed that the most frequent site of the lesion is the rectosigmoid, at about the point where the peritoneum is reflected forward over the prostate and bladder in the male and the uterus in the female. The ampulla of the rectum is the next most frequent site, and the anal canal only rarely is involved.

Rankin states that in 100 cases of cancer of the pelvic colon carefully observed, he found 69 at the rectosigmoid juncture, 29 in the rectum proper, and 2 in the anal canal.

### DIAGNOSIS

The two most important symptoms of cancer of the pelvic colon are changes in bowel habit and bleeding. The lesion is essentially an irritative one, which upsets the normal rhythm of bowel action. Instead of a normal daily evacuation, there will be a number of incomplete movements which leave the patient with a feeling that defecation has been only partially completed. This is not a diarrhea, nor is there constipation in the clinical acceptance of the term.

Sooner or later there will be bleeding. This will occur when the proliferating mass of cancerous cells breaks down and ulceration begins. The blood will not be a free hemorrhage, as occurs in hemorrhoids, but will appear as stains on the fecal mass deposited as it passes over the ulcerating surface of the lesion.

Any patient who gives a history of a break in normal bowel rhythm, of having a number of daily incomplete stools with a feeling of discomfort in the rectum, and with the occasional presence of streaks of blood on the fecal mass, should have a digital rectal examination. It is a sad but true statement that the vast majority of patients with

cancer of the pelvic colon are denied any chance of ultimate recovery because of the failure to make a simple digital exploration of the rectum. A majority of the lesions in the pelvic colon are within reach of the examining finger. A hard indurated mass will be felt either on the anterior or posterior rectal wall. If it is not too far advanced, the mass will be movable, which indicates that the lesion has not yet perforated the bowel wall and involved the perirectal tissues. If late, the mass will be fixed to the bladder or prostate.

The x-ray is of doubtful value in the diagnosis of cancer of the pelvic colon. The barium meal should never be given as it may produce an acute obstruction in an already partially occluded bowel. A barium enema may be given but the information obtained will add little to the diagnosis.

As in all cancerous lesions, the final word in diagnosis must be obtained from a biopsy. The tissue must be obtained through a sigmoidoscope, at which time visual inspection of the growth can be made, which reveals a bleeding, ulcerated lesion on the rectal wall.

After a diagnosis is made, the problem of treatment presents itself. Before this is discussed with the patient, I believe he should be told the nature of his lesion. If an early diagnosis has been made, before serious discomfort occurs, he is apt to underestimate the seriousness of his lesion, and be reluctant to submit to radical surgical treatment.

There are three surgical procedures available for treating cancer of the pelvic colon: (1) Colostomy with no attack on the local lesion, a palliative measure. (2) Colostomy with some type of posterior resection as proposed by Lockhart-Mummery. (3) Colostomy with abdomino-perineal excision as proposed by Miles.

Unfortunately a considerable number of patients are found by the surgeon to have advanced lesions, a frozen pelvis with impending obstruction. Such cases are hopeless, and palliative colostomy is the only recourse. Although a simple left-colostomy in such cases is accompanied with a surprisingly high mortality, it may result in prolonging life for a few years in relative comfort. A considerable amount of the indurated mass in the pelvis is due to inflammatory swelling and edema, and this is relieved by the defunctioning effect of the colostomy.

The second available surgical procedure is the performance of a permanent loop colostomy, followed by posterior excision of the pelvic colon. This operation has the advantage of a low mortality rate, as the peritoneal cavity is not invaded in the dissection, but it fails to remove the pelvic lymph nodes, and enough of the distal gut to get beyond the zone of spread in the bowel wall. How-

\* Presented before the Section on Surgery of the Indiana State Medical Association at the Indianapolis session, October 5, 1938.



ever, Lockhart-Mummery who is an advocate of this operation has a mortality rate of only 4%, and 60% five-year cures. He does a very radical posterior dissection. After removing the coccyx, he enters the peritoneal cavity anterior to the sigmoid at its lowermost reflexion over the bladder and prostate in the male and uterus in the female, thus enabling one to mobilize the bowel and transect it much higher than otherwise would be possible. He insists that the bowel must be excised 6 or 7 cm. above the growth in order to get above the zone of spread in the bowel wall.

The third available operative procedure is the combined abdomino-perineal excision as proposed by Miles.

Twenty years ago Miles proposed certain basic principles which he believed must be observed in treating cancer of the rectum and rectosigmoid, if a cure is to be expected, and described an operation which fulfilled the requirement which he had proposed.

His reasons for proposing this operation are based on his observation of method of spread of cancer of the lower colon in cases in which he had operated by local posterior excision, and failed to cure. He found by post-mortem examination of these cases that recurrence had occurred beyond the field of local operation, in the following places: (1) pelvic meso-colon, (2) pelvic peritoneum, and (3) the lymph nodes situated over the bifurcation of the left common iliac artery. His operation, therefore, is designed to remove the local growth and also the upward zone of invasion.

This principal of surgical attack on cancer which demands removal not only of the local lesion but also wide removal of infected tissue beyond the zone of spread, had already been accepted as sound surgical practice in cancerous lesions of other organs. It was to bring the surgical treatment of cancer of the pelvic colon in line with the accepted principle of surgical treatment of cancer in other organs that Miles proposed his combined abdomino-perineal excision for cancer of the pelvic colon.

He formulated certain essentials in the technique which must be strictly adhered to if satisfactory results are to be obtained, and I quote them verbatim, for they have become the accepted standards of a large group of men who have had a wide experience in the treatment of cancer of the pelvic colon.

1. That an abdominal anus is a necessity.
2. That the whole of the pelvic colon except the part from which the colostomy is to be made must be removed because its blood supply is contained in the zone of upward spread.
3. That the whole of the pelvic meso-colon below the point where it crosses the common iliac artery, together with a strip of peritoneum at least an inch wide on either side of it, must be cleaned away.
4. That the group of lymph nodes situated over the bifurcation of the common iliac artery are in all instances to be removed.

5. That the perineal portion of the operation should be carried out as widely as possible so that the lateral and downward zone of spread may be effectively extirpated.

It is pertinent to inquire into the reasons why the combined operation, as proposed by Miles, has been slow of acceptance especially in view of the fact that it fulfills all the criteriae essential in the surgical treatment of cancer of other organs.

The following reasons appear to have had a major influence in preventing this method from a wider acceptance by surgeons than it now has: (1) an abdominal anus or permanent colostomy; (2) late diagnosis with consequent large inoperable group, and (3) primary mortality.

**Permanent Colostomy:** Unquestionably the prospect of having to live with a permanent colostomy is objectionable to the individual to whom it is first proposed. It is, however, a problem of aesthetics and not physiology, for the major function of the large bowel, which is that of a reservoir, is not interfered with. From an excretory standpoint he is guaranteed a perfect functioning bowel.

Much can be done to dull the keen edge of abhorrence of a permanent colostomy, by a proper understanding of how to care for the function of the large bowel under the conditions imposed by its new exit in the abdominal wall. There is no method of colostomy that will effect an appreciable sphincteric control over the abdominal anus.

The function of the bowel must be regulated by diet and a daily enema. If proper attention to diet is observed and a daily morning cleansing enema given, requiring approximately a half hour to do properly, no further discharge from the bowel will occur during the day. Lahey states that 75% of his cases with permanent colostomy do not wear a colostomy bag, as a small gauze pad, fixed with adhesive plaster, affords ample protection. A patient with a permanent colostomy can be confidently assured that it will not prevent him from engaging in any business or social activities he may wish to pursue.

**Late Diagnosis:** The combined abdomino-perineal operation is definitely limited in its use in the treatment of cancer of the pelvic colon because of late diagnosis and general constitutional disability. Late diagnosis means an extension to the bladder and prostate in the male and the bladder and uterus in the female. The upward spread into the pelvic meso-colon, peritoneum, retroperitoneal lymph nodes, and finally the liver, combine to make the situation hopeless for ultimate cure.

From my own observation in a limited group of cases fully 65% of them, either because of late diagnosis or constitutional disability, are not candidates for the combined operation.

It becomes apparent that the majority of patients presenting themselves for treatment for cancer of the pelvic colon cannot be treated by combined abdomino-perineal resection. Some type of operation such as local posterior resection, with permanent abdominal colostomy or electro-cauteri-

zation, must be done. The combined operation, as I see it, must be reserved for the patient who is fortunate enough to have his lesion diagnosed early (before extensive spread by continuity and metastasis has occurred) and whose physical assets are sufficient to warrant an operation of major proportions.

**Operative Mortality:** Operative mortality in this, as in other major surgical procedures, must be kept within reasonable limits or it becomes prohibitive. The factors which influence mortality rates are so varied that it is difficult to establish a uniform figure which accurately represents the operative risks. The mortality rate is in direct ratio to the operability rate. That is to say that if advanced cases with extension of growth beyond the bowel wall in debilitated patients are rejected for this operation, the mortality rate will be within acceptable limits.

An operative death rate of 7% to 10% represents about the average, with a definite improvement as greater experience is gained. Much can be done to reduce the operative risk by proper preoperative preparation. These patients should be hospitalized at least a week before operation during which time a careful estimation of cardiac and kidney function is made, the bowel is thoroughly emptied by castor oil and enematae, blood transfusions are given if indicated, and saline and glucose administered. Because of the large number of detailed steps in the technique of the operation, it is likely to be prolonged beyond a safe margin for a patient handicapped by his disease and probably from age. For this reason it should not be undertaken except with the assistance of a well trained personnel. Team work by the surgeon, his assistants and the nursing force is essential if a margin of safety as to time and careful attention to details are obtained.

The combined abdomino-perineal operation can be done in one or two steps. If some degree of obstruction is present, so that it is difficult to thoroughly empty the lower bowel by enematae or cathartics, and the age and general condition of the patient are handicaps, the two-stage operation is safer. It is my personal belief, however, that in patients with lesions advanced to the point of obstruction, metastasis has already occurred and the chance of ultimate cure is small. If one stretches the operability rate to include this group, the mortality will be high and five-year cures low. It is evident from a study of the literature that many American surgeons are stretching their operability rate to include a group of advanced cases, which Miles rejects for this operation. With an operability rate of only 30%, he quotes 79% of five-year cures, which is a much higher percentage of five-year cures than American surgeons have obtained.

#### TECHNIQUE

A midline incision is made from umbilicus to symphysis. This incision, in my experience, gives

better access to the depth of the pelvis than a rectus incision which some surgeons recommend. Search is made for evidence of gross metastasis in pelvic lymph nodes and liver. If these are found, no attempt at radical excision should be undertaken. Unless there is a reasonable chance of cure, the patient should not take the risk of a radical operation with its attendant dangers and prolonged convalescence. A loop colostomy can be done as a palliative measure if impending obstruction appears likely.

If radical excision is indicated, the head of the table is lowered and the pelvis is cleared of small bowel which is retained in the upper abdomen by copious packs. If the patient is a woman, I have found it of advantage to suture the uterus to the skin at the lower angle of the wound, thus removing it as well as the bladder from the field of the deep pelvic dissection. The sigmoid is then grasped and its mesentery exposed. The mesentery of the sigmoid, beginning at about the brim of the pelvis and downward through its entire length, is doubly clamped, cut and tied. This will include the inferior mesenteric artery and if carefully done will make completion of the pelvic dissection practically bloodless. With its mesenteric attachment to the pelvic wall severed, the sigmoid can now be mobilized and a good view of the peritoneal reflection over its anterior and lateral walls is possible.

An incision just through the peritoneum and encircling the gut at the lowermost peritoneal reflection is made. Care should be taken to conserve as much peritoneum as possible, as the flaps should be of sufficient length to afford easy closure to make a new pelvic flow after removal of the gut. The pelvic colon is now freed from its attachment to the pelvic wall laterally and posteriorly and the prostate anteriorly if the patient is a male. This can be done by blunt dissection largely with an occasional snip of fibrous bands. This dissection is facilitated by making traction on gut which brings into view any tissue resisting blunt dissection. No blood vessels are encountered requiring ligation. The gut should be freed as far into the depths of the pelvis as possible, especially posteriorly, as it makes its removal easier when approached from below.

This completes the pelvic dissection, all of which has been done before the gut has been opened. The sigmoid is now doubly clamped as low down as possible and transected with the cautery. The distal stump is closed by suture and tucked beneath the peritoneum, which is sutured above it to make a new pelvic floor. The proximal sigmoid, which may be a foot in length, is placed at the upper angle of the midline incision to form the permanent abdominal anus. After five or six days this redundant gut is cut away with the cautery about two inches from the skin surface. The midline incision is closed without drainage.

The patient is now turned to the prone position, with the body flexed at the hip. An incision is made



beginning well above the coccyx, downward and encircling the anus. The anus is closed with a purse-string suture. The coccyx is amputated in order to reach the lower segment of the gut, which was tucked beneath the peritoneum during the abdominal dissection. The pelvic colon is then freed from its attachment and removed, some care being necessary to avoid injury to the prostatic urethra in the male. This large wound is then closed by deeply placed approximating sutures, interrupted silk for the skin, having a penrose drain at the upper and lower angles of wound.

#### CONCLUSIONS

Late diagnosis is the largest single factor in preventing the cure of cancer of the pelvic colon. The lesion is relatively benign, slow to spread and, therefore, possible of cure by radical extirpation. The surgical procedures employed will depend upon how far advanced the local lesion is and the general condition of the patient.

Permanent cure is the ideal sought. The abdomino-perineal operation is admittedly a radical one, entailing as it does a permanent colostomy and a not inconsiderable mortality rate. However, it must not be forgotten that the disease which it seeks to cure is 100% fatal if untreated, and in the light of our present knowledge, that operation which removes not only the local growth but its spread into adjacent tissues will most nearly approach the ideal of a permanent cure.

809 HUME MANSUR BUILDING.

#### DISCUSSION

WILLIAM H. GARNER, M.D. (New Albany): It is usually a deplorable condition in which we see these patients. If we are going to get anywhere with the treatment of rectal cancer, we must see these patients before they are in this deplorable condition. It is a condition that can be diagnosed without a lot of laboratory work or a lot of expensive equipment.

It is as Dr. Haggard once said, the doctor must never get too important and discard his instruments of diagnosis to the exclusion of the glove; we must always use that.

Ninety per cent of carcinoma of the rectum can be diagnosed by palpation, the other ten per cent by the use of the proctoscope. One hundred per cent can be diagnosed with simple instruments.

Another thing, if we are going to make any progress in the treatment of this, we must have more uniform cooperation among the medical man, the x-ray man, and the surgeon. Too frequently we see these cases in a deplorable condition and when only palliative treatment can be instituted, but the medical man, in getting his history, should make this rectal examination, and make a diagnosis when it is a local lesion in the wall rather than in the surrounding tissues.

Dr. Hadley has outlined the symptoms, which are most important, as he said. There is the change in the bowel habit, then bleeding. That is a late symp-

tom. We should make the diagnosis, if at all possible, before that bleeding starts, because that means breaking down and loss of blood from an ulceration. Pain and obstruction should not be the symptoms of carcinoma of the rectum. They are a sign of impending death rather than a symptom that something should be done about them.

The choice of operation, as Dr. Hadley said, must depend entirely on the condition and age of the patient. The ideal operation is the permanent abdominal colostomy with a resection from above downward. If we are dealing with cancer of the stomach, we get, in the hands of the best men, only 8 per cent cures. In the hands of the best men, with the proper diagnosis, early enough, we get from 30 to 60 per cent five-year cures from carcinoma of the rectum. There is the only significant thing of carcinoma of the rectum over carcinoma of the other parts of the body. We have a curable condition if diagnosed early and if proper means are established to eradicate that. It is not uncommon to see a patient with carcinoma of the rectum, and, in discussing it with them, have them say, "I would rather die than have a colostomy. My doctor says I should never have that done." That is one thing we should get away from because patients will delay work if they are instilled with that kind of knowledge from their attending physician. We must meet the facts as we do with cancer of the breast, and tell the patient, "You have cancer. We must do something." If you do that with rectal cancer, and explain it thoroughly, our good results will be increased in regard to the five-year cures.

#### ABSTRACT

##### RECTAL AREA CANCERS MAY BE SECONDARY

All malignant growths of the rectal area should be minutely examined to ascertain whether they are secondary or primary cancers, inasmuch as such conditions may have their origin in other parts of the body, Harry E. Bacon, M.D., Philadelphia, advises in *The Journal of the American Medical Association* for March 4.

Reporting seventeen cases of cancer of the breast or of organs in the abdominal cavity in which the first symptoms were those caused by malignant growths of the rectal area, Dr. Bacon points out that: "whereas in this series the disease was advanced, it must be realized that such secondary invasion may occur early and be the only extension. The condition is of importance in that it is not extremely rare, the symptoms may not direct attention to the primary growth and the extra-rectal process may be incorrectly diagnosed. As a routine procedure careful palpation and visualization of the rectum in every case of suspected malignant growth are advocated."

Physicians are agreed that between one-third and one-half of the 150,000 men, women, and children who die annually from cancer could and should be saved by early diagnosis and treatment.

## CANCER OF THE STOMACH\*

E. E. PADGETT, M.D.  
INDIANAPOLIS

Discussion of the subject of cancer of the stomach is very necessary for we know that the death rate from cancer in all forms, and from cancer of the stomach in particular, is increasing rapidly. In the face of this fact, the medical profession is making an heroic fight, although to some of our members it appears to be a futile fight. This attitude is wrong, for we know that progress in the treatment of cancer in general is being made. Of course we are all aware that our poor showing in the treatment of cancer is based on the fact that as yet we are in the dark as to the real cause of cancer. However, we are in the possession of certain facts that point in a certain direction, and on the basis of these facts we must proceed, keeping in mind all the time the endless search for the cause of cancer.

In 1900 cancer ranked sixth among the causes of death; in 1929 it ranked second, and that rank is held at the present time. In our last statistical report which is now nearly two years old, there were approximately 150,000 deaths from cancer in the United States alone. Statisticians figure that for each reported death there are at least three living cancer patients, so that there are today approximately 450,000 cancer sufferers in the United States.

Individual reports together with those of the census bureau today indicate that one-third or 33⅓% of cancer deaths are from cancer of the stomach.

### ETIOLOGY

#### *Predisposing agents:*

1. Sex. More common in men than women (three to one).
2. Age. Beyond 35 years Warwick reports 176 autopsies on cases of cancer of the stomach. Largest number, 35%, occurred in sixth decade, 29% in fifth decade. Age of cases varied from 32 to 82 years.
3. Race. There seems to be no appreciable difference in cancer of the stomach, or in cancer in general, in races, with the one exception that cancer of the uterine cervix is rarely, if ever, seen in Jewish women.
4. Previous diseases of stomach.
  - a. Gastritis chronic in character.
  - b. Ulcers in certain parts of stomach.
  - c. Benign tumors, papilloma and adenoma, much more common than diagnosed.
  - d. Occupation. Appears nil as there are no statistics of value as in cancer of skin, throat, lungs, bladder.
5. Injuries. Food particles and hot or cold foods or drinks, etc.

*Direct.* According to Horsley and others, cancer seems never to spring from normal tissue. There must be a crack, ulceration, papilloma or adenoma, or some abnormal lesion from which it rises. It springs from certain cells which for some reason have escaped the control of the surrounding cells, and which are attempting to repair an injury following a chronic irritation from mechanical, thermal, chemical or biologic source.

Normally, repair cells go through a definite cycle to maturity, but malignant cells, having escaped from the influence of the surrounding tissue and acquired an unusual internal stimulus, never become completely mature, and grow irregularly without the customary law and order. The more nearly mature a cancer cell becomes, the less malignant it is. On this fact largely is built the grading of cancer by Broders and others. This, briefly, is the most widely accepted theory of the beginning and pathogenesis of cancer.

Therefore, previous diseases of the stomach become directly concerned as causative factors; e. g., Miller, Eliason and Wright report that in 35% of all gastric polyps that they have studied, they have found that there were cancerous changes in the base of the polyp. Our reports of the development of cancer from peptic ulcer are legion. We cite a few: Cabot and Adie report 56 cases of peptic ulcer in which 5 cases had undergone cancerous changes.

Eiselberg of Vienna has reported cancer in 30% of ulcers of the pyloric end of the stomach undergoing malignant change. Finsterer puts this figure at 26% of all peptic ulcers. W. J. Mayo thinks we are safe to say 20%, while the roentgenologists state that any ulcer that can be demonstrated by x-ray along the greater curvature of the stomach is always malignant, whereas ulcers along the lesser curvature and in the pyloric region are more frequently benign than malignant.

Hurst believes that chronic gastritis especially paves the way for the development of gastric ulcer and cancer. Most recent writers believe, therefore, that there is a previous lesion in the stomach and, in the process of healing, malignancy develops.

### SYMPTOMS

All of us are all too familiar with the classic symptoms of carcinoma of the stomach, i. e., indigestion, pain, vomiting, hemorrhage, loss of weight and obstruction. Unfortunately, these all develop late, and to wait for their appearance means a patient doomed to a cancer death. The symptom of indigestion which we are prone to take lightly assumes an important place among symptoms if we believe that cancer never develops in normal healthy tissue. Hence, the value of good history

\* Presented before the Tippecanoe County Medical Society, Lafayette, February 14, 1938.



and early treatment as a preventative of something more serious.

Pain appears only late, and as a rule does not become extreme until all hope of cure has vanished. Vomiting is not nearly as common as believed, and usually appears only with the beginning of obstruction. Loss of weight is a constant sign of late cancer and an indication of hopelessness.

Hemorrhage is not so common as is believed and occurs only with ulceration. Saltzstein and Sandweiss give the incidence of visible bleeding as 1.4%.

Obstruction usually appears late. However, if the mass involves the pylorus it may be early enough for surgical intervention.

Metastasis is the bane of all our methods of treatment, but here is the redeeming fact. Of Warwick's 176 autopsies on cases dead from gastric cancer, 23% had no metastasis. This appears to be a very good margin of possible resections.

Cancer is not contagious.

Cancer is not an infection, and is not hereditary, although there does appear to be a familial tendency.

#### DIAGNOSIS

If we are to help these people, diagnosis must be made early. The symptoms appear late. We must, therefore, find this lesion by means other than clinical symptoms. Of these aids to diagnosis we have four:

1. Complete history dealing especially with previous stomach symptoms.
2. Chemical and microscopic examination.
3. X-ray routine repeated.
4. Gastroscopy.

1. Take the history carefully. Never overlook the family history of stomach trouble in the ancestors, because there may be found a cancer tendency. Look carefully into the history of chronic indigestion, and always suspect a gastritis of chronic character. Remember that cancer does not develop in normal tissue, and that gastritis is the common cause of abnormal tissue in the stomach mucosa. Never overlook the fact that benign tumors of the stomach are common, and that about 30% of them develop malignant changes.

2. Chemical. The chemical study of stomach contents has doubtless been over-rated in the diagnosis of cancer; however, it is to be followed routinely, keeping in mind always that the less free HCl there is, the farther advanced is the cancer.

The microscope plays its part here, not by finding cancer cells, but by showing the presence of blood in the stomach contents. Massive hemorrhage occurs rarely, and only when the cancer ulcerates, but red cells may be found early with the microscope.

3. X-ray early and often, always to be interpreted by one familiar with the picture. It is a safe rule that all ulcers that do not heal progressively under medical treatment are a very definite reason for resection. And the number of early

cancers found in this way will be gratifying to the physician if not to the patient.

4. Gastroscope. As to the use and value of the gastroscope, I prefer to quote Freeman.<sup>1</sup>

Freeman has used this relatively new instrument rather frequently and intelligently. He reports conclusions of examination of 200 cases in Johns Hopkins Hospital. This method, of course, employs direct inspection of the interior of the stomach, much as the interior of the bladder is studied with the cystoscope. Gastritis is believed to be contributory to the development of both ulcer of the stomach and carcinoma. Hurst believes that a direct etiologic relation exists between chronic gastritis and carcinoma, since carcinoma never develops in a normal stomach. This is borne out by the frequency of gastritis in that part of the stomach in which ulcer and cancer develop. Taylor points out that the view that peptic ulcer is a sequel to an untreated gastritis in a hyperplastic stomach is rapidly gaining acceptance.

"Gastric ulcer as visualized through the gastroscope is quite characteristic. The yellow or yellowish white base, the mucosal folds converging toward the crater, and the edema surrounding the crater can hardly be mistaken for anything else." This, according to Freeman, is quite different from the appearance of carcinoma. In this disease "the ulcerative area is quite irregular, and sloughing black, brown or grayish tissue may be seen in the floor of the crater. Not only does one see nodules surrounding the crater, but nodules may be seen throughout the body of the stomach in some cases." This author states that a superficial gastric ulcer may be diagnosed gastroscopically when the diagnosis is practically impossible from x-ray studies. He believes that this method will be found to be of utmost value in the early diagnosis of carcinoma.

X-ray studies of carcinoma of the stomach have made possible its early recognition. Now the surgical pathologist, not the post mortem pathologist, looks for small gastric cancers. To prove that gastric carcinomas are now being recognized in their early stages, MacCarthy<sup>2</sup> measured the size of the lesions in 1568, resected specimens obtained at the Clinic between 1918 and 1931 inclusive. The average lesion was 6.1 cm. in diameter, and 53 per cent of the specimens had lymph node involvement. Six per cent were the size of a twenty-five cent piece, 2.5 cm. or smaller. From 1931 to 1937, inclusive, he measured 410 specimens of gastric carcinoma. The frequency of cancers the size of a twenty-five cent piece or smaller rose from 6% to 9.7%. In 1936 the percentage was 21%. In each year of the last six, the percentage was larger than the average period between 1918 and 1931. In the whole series, 1918 to 1937, there were 1,978 resected gastric cancers, 128 of which were 2.5 cm. or less

<sup>1</sup> Freeman, E. B.: Gastric Lesions, *J.A.M.A.* Vol. 112, No. 3, Jan. 21, 1939.

<sup>2</sup> Early Cancer of the Stomach and its Clinical Significance. Wm. C. MacCarthy, Mayo Clinic. *Arch of Surgery*, November, 1938.

in diameter. He concludes, because of the very indefinite subjective symptoms of carcinoma of the stomach, that early diagnosis cannot be established unless x-ray and fluoroscopic studies are made routinely on patients with suggestive symptoms. All of MacCarthy's 128 early cancers were x-rayed, explored and excised. Without x-ray studies they would not have been found.

Not until the practicing physician begins to apply x-ray and fluoroscopic studies will he diagnose early carcinoma of the stomach. Early gastric cancer has no textbook pathognomonic signs or symptoms. The sooner this truth is appreciated, the sooner will the gastric cancer problem be handled more intelligently and successfully.

#### TREATMENT

All of our ideas gathered from experience in handling these cases and from study of the literature point in one direction, that of surgery. Early

and wide dissection is necessary. The final verdict, of course, is up to the operator upon direct inspection of the stomach lesion at the operating table. A clear evidence of metastasis to the liver or pancreas, or both, may reveal the futility of resection and lead in the direction of palliative measures to relieve obstruction only. And this should always be done. The presence of too much involvement of the stomach itself may rule out resection, although the present and growing tendency is for wide dissection.

The use of radium is far from practical because of the difficulty in proper contact with the lesion.

The use of x-ray in dosage sufficient to do good to the stomach lesion is fraught with the ever present danger of damage to the liver or pancreas. If, therefore, we have any message for you in this discussion, it can be summed up in this trite expression: "Early diagnosis, and early and complete resection."

424 HUME MANSUR BUILDING.

## INDIANAPOLIS CITY HOSPITAL CANCER CLINIC

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INDIANAPOLIS

After many years of thought and relative inaction, several members of the Indianapolis City Hospital in September, 1933, formed a committee to take under consideration a more progressive stand with regard to the problem of the diagnosis and treatment of cancer. This finally culminated in the formation of an organized clinic for the diagnosis of malignancy and with only suggestions as to therapy, for our only means of therapy at that time were either direct surgical intervention or the use of a relatively inadequate x-ray machine. This definite stand and action did not portend of much success at first but, with time, its usefulness was definitely recognized in the greater number of cases that were eventually either diagnosed as malignant or non-malignant, the original clinical impressions being either confirmed or unconfirmed by histological study of the tissue.

As time bore on, greater interest was aroused among the profession which was seen by the increased number of medical men who showed interest in this undertaking of the early diagnosis and treatment of malignancy. It became more and more evident to those of us who conducted this clinic that we were seeing invariably far advanced cases which according to our present standard of nomenclature are considered grade IV or the highly undifferentiated type of tumor cell. The bulwark of our early efforts was to counteract this tendency of delay both from the standpoint of the patient and the family physician who first came in contact with these cases.

Our first problem then was how to meet this tendency and how to overcome it? This was no easy matter under our early set-up which had

many defects and fallacies through no real fault of ours. The difficulty lay in decidedly inadequate finances, indifference on the part of the laity, and to a decidedly lesser degree, a lack of understanding on the part of the profession itself.

We of the cancer committee feel that we have accomplished much in the essence of both diagnosis and treatment through avenues of contact with our many patients who, by word of mouth or otherwise, spread the news of our efforts and with their commendation gave us favorable and much needed propaganda. The major success that we have derived has probably been through this source. The medical profession itself has also revealed to our satisfaction the true cooperative spirit in referring many of their patients to us and revealing definite patience in the results of our tasks. Thus they have recognized with us that there are many unsolved problems with regard to malignancy both from the standpoint of diagnosis and especially with reference to treatment.

It is our purpose to emphasize the necessity of making the benefits of contemporaneous knowledge of cancer available to every cancer patient in this community. We fully realize our shortcomings, moreso with treatment and with diagnosis, as the future reveals definite and more efficient methods of treatment of the disease. We shall try to continue to progress with the times so that we may more effectively reduce the suffering and mortality from malignancy by an organized application of the knowledge that becomes available to us.

Having progressed along these lines, there has



been a real and definite response from suffering humanity of this community for assistance both from a diagnostic and therapeutic point of view. By this we mean that some of the patients who have presented themselves to us for an opinion were accorded the initial consultation and when it was found that their financial status was such that they were not eligible, they were referred back to the family physician with a statement from this committee as to the clinical diagnosis, confirmed by biopsy, therapeutic suggestions, full details of our personal impressions of the case, and the histological report for his consideration. This assistance that we have accorded the profession has met with kindly interest and has added materially to the definite progress and to the present relative successful results of the objectives of the Indianapolis City Hospital Tumor Clinic.

As a rule we give no specific information to the patient in person, and it has been our objective to use the proper psychology in the handling of these unfortunates. Where we have no difficulty in handling we see no reason for acquainting them with their unfortunate malady. But in those instances where it is necessary to overcome inherent lethargy or rather malicious influences, we invariably feel impelled to acquaint the patient with the circumstances of his or her condition. This again is not a task quite as simple as it sounds and frequently imparts the vivid picture of a masked catastrophe. We invariably try to overcome any such influences or thoughts, calling into action not only our own resources but those of our social worker who is responsible for the initial interview of our patients, inquiring into their eligibility for diagnosis and treatment. It is usually our purpose to overlook momentarily the eligibility in most instances so as to accelerate the necessary therapeutic measures. We feel that we are definitely assisting our patients and also materially lending a helping hand to our colleagues at large who do not have the needed and necessary means for early diagnosis.

It is our hope that by assisting the profession at large we are gaining the objectives of our clinic and the good will of all concerned. It brings to our attention more and more cases and particularly patients with early evidence of the disease, which makes the end results much more positive, for the profession at large now understands that our end results are dependent more upon an early diagnosis than upon any definite single specific or combined therapeutic measure.

Such a clinic as ours has definite advantages, both for the patient and profession. It makes accessible a channel for quick diagnosis and treatment of the patient. Especially when we recognize the ultimate cost of this latter procedure, a large group of individuals in a community such as Indianapolis will fall under the heading of being eligible for treatment. In the past this type of

individual, in the majority of instances, was neglected because of the lack of adequate finances. This was no fault of the profession itself, and the condition arose through circumstances over which we have no immediate control.

Through the kindly efforts of the philanthropies, of lay individuals, and of organizations, one can usually make more definite progress than by appealing to our law-makers. Such support has been our mainstay and chief means of progress and success. Through such efforts we have not only built up an adequate diagnostic clinic but also have made progress from a therapeutic point of view, having acquired an adequate amount of radium for our purposes in May, 1936. This was obtained through the successful efforts of the Federation of Women's Clubs, Seventh District, and through the Indianapolis Foundation. This was a real beginning and it was a forward step in making it possible to care for many more patients, not only for treatment from a curative point of view but also from the standpoint of palliation.

Through a bequest in the will of the late Mrs. Kathryn Cones Patrick, a goodly sum of money was put aside during the past year for the diagnosis and treatment of malignant diseases and also for research. Part of this sum was immediately made available for use. The remainder is to be apportioned in equal sums over a period of five years. Through this means, within recent months, there has been added to the clinic a cancer ward with twenty-two beds available for this work. Of these, twelve are for females and ten for male patients. With the addition of the ward we have acquired an additional 200 KV deep therapy x-ray machine to supplement our old therapy machine; the latter was subjected to over-hauling and reconstructing and is now used more as a superficial therapy machine so that at the present time we are in a position to handle about forty cases daily. This is a substantial advance over our former possibilities of treatment.

The cancer ward grants us many and varied opportunities from the standpoint of closer and more concise observation of the progress of a case. It gives us also a more definite and firm control of the course of events in the handling of these cases. This lends itself to better end results in diagnosis and treatment. Our efforts, as our statistics will show, have been duly rewarded; not that we make any basic claim of definite or absolute cures, but we do feel convinced, with the means we have at our command, that we have made signal progress in the early diagnosis and treatment of our cases. Furthermore, we know that many patients have received valuable benefits from palliative treatment. We firmly believe that the percentage of cures in early cases can be and has been definitely increased so that the general consensus, among those who have had experience over a period of years, is that from sixty to eighty percent of early or grade I carcinomas can be

cured. When we progress down the line to grade II we find a definite fall below fifty percent, more correctly estimated around forty percent, and with those graded III approximately only ten to fifteen percent, and Grade IV about three to five percent. In arriving at these percentages, the cases have been graded from a clinical rather than from a histological point of view. This should immediately command the respect of the profession at large when we compare these organized clinical results of today with those of twenty years or even ten years ago. Of course there were not many and varied organized clinics in those times compared with the number that exist today, and their means of diagnosis were not perfected nor could one consider that they were studied to the same degree and under the same relative ideal circumstances as is the case today.

The following resume of our progress since the inception of the clinic will give a descriptive portrait of the development of this clinic. We fully recognize some of our faults and fallacies and are making every effort to lessen them. Our clinic as it is today is duly recognized by the American College of Surgeons, meeting all the requirements of the organization for service for the diagnosis and treatment of cancer.

## 1933

Number of new cases diagnosed in Tumor Clinic since its inception in September	26
Total number of clinic visits made to Tumor Clinic	42

## 1934

Number of new cases diagnosed in Tumor Clinic	137
Total number of clinic visits made to Tumor Clinic	405

## 1935

Number of new cases diagnosed in Tumor Clinic	107
Total number of clinic visits made to Tumor Clinic	366

These 1933, 1934, and 1935 figures give one only a perspective of the number of cases treated and the number of clinic visits made by the individual patients. The vast majority of the cases diagnosed were malignant and only relatively few of the number received adequate treatment. It was during this time that our therapy armamentarium was limited and only those cases that were amenable to electro-surgery were accorded what one would consider relatively adequate treatment. Therefore, in this series we were not in position to give any statistical study of any real benefit other than the opportunities that were accorded us in making a positive diagnosis both from a clinical and histological standpoint through the taking of biopsies.

## 1936

Number of cases diagnosed in Tumor Clinic,	172
Total number of clinic visits made to Tumor Clinic	592

Kinds of cases treated with radium from May 11, 1936, to December 31, 1936: gynecology, 16; hemangioma, 1; ear, 3; tongue, 4; eye, 1; nose, 4; cheek, 4; lip, 3; tonsil, 1; jaw, 1; palate, 1; temple, 1; genito-urinary, 1.

Total number of cases treated with radium in 1936: 41.

This resume covers approximately seven months and takes into consideration the cases treated with radium. All sixteen of the gynecological cases enumerated received radium in one form or other in addition to deep x-ray therapy.

## 1937

Number of new cases diagnosed in Tumor Clinic	188
Total number of clinic visits made to Tumor Clinic	1,026

Kinds of cases treated with radium: gynecology, 55; neck, 2; face, 16; genito-urinary, 2; tongue, 2; bladder, 2; hand, 1; larynx, 1; mouth, 1; nose, 2; lip, 8.

Total number of cases treated with radium in 1937: 92.

The 1937 statistics reveal no unusual enlightening facts other than the marked increase in gynecological cases over the previous year. All received radium and deep x-ray therapy.

## 1938

Number of cases diagnosed in Tumor Clinic	277
Total number of clinic visits made to Tumor Clinic	1,749

Kinds of cases treated with radium: gynecology, 39; thyroid, 1; trachea, 1; rectal, 1; nose, 3; lip, 1; cheek, 2; broad ligament, 1; antrum, 1; sarcoma of arm, 1; angioma, 1; hemangioma, 3.

Total number of cases treated with radium in 1938: 55.

As in the previous year, the predominant cases treated with radium were gynecological which is the customary experience in clinics the world over. We have not reached any Utopia in treatment and, therefore, cannot set any hard and fast rule in the treatment of our varied cases. Consider, for instance, breast cases: we are still treating them surgically with pre-operative and post-operative deep roentgen ray therapy. With the radium at our command, we have not felt it practical to use it in preference to the high voltage treatment. Such has also been our experience with malignancies in the deep cavities such as the chest and abdomen. We have only used radium in these latter cases in rare instances. Most of our skin cases are treated by electro-surgery methods which we find the most expedient in the majority of instances—usually supplemented by deep roentgen therapy. Our best results, naturally, are obtained in those cases that are most exposed to our view, such as skin cases, and the opposite holds true for the deep or body cavity cases.

It is only by the concerted efforts of the physicians in the respective fields and with an open



and diligent mind that one can expect real progress and results. It is essential that full cooperation be accorded by members in the respective fields of the profession, for through such cooperation the best results may be obtained. At times

the internist's opinion is just as essential as that of the pathologist, roentgenologist, or surgeon, and it is only by recognizing these facts that the best end results will be obtained.

445 N. PENNSYLVANIA ST.

## CYCLOPROPANE, A RESUME OF PERSONAL EXPERIENCE\*

CHARLES N. COMBS, M.D.

TERRE HAUTE

In 1908 when I read a paper before the Indiana State Medical Association urging that anesthesia be accorded the status of a true specialty, little did I envision the time when I would be permitted to present a paper before a recognized Section in Anesthesia—an important and successful department of this same State Association.

Cyclopropane entered the threshold of anesthesia within the last few years. No attempt will be made to review or discuss the literature now accumulating to large proportions so readily accessible, or to recount the historical development. Suffice it to say that after witnessing its skillful use by Dr. Ruth two years ago, I was intrigued by its possibilities and began to utilize its advantages. My only regret is that I cannot relive the 20,000 anesthetics I gave before I became acquainted with this miraculous drug. Not that I have not had many enthusiasms and hobbies incident to the advent of nitrous oxide, avertin and later spinal, which came as such welcome relief from years of apprenticeship with chloroform and ether. None, however, can compare with the thrill experienced when cyclopropane revolutionized my entire methodology. Could I not share the exultation of the immortal Keats on first looking into Chapman's *Homers*:

"Then felt I like some watcher of the skies  
When a new planet swims into his ken."

My impassioned emotions were all the more intense since I had not taken the intermediate step of using ethylene. Unfortunately, the death of a colleague as the result of an ethylene explosion dissuaded me just as I was about to use it.

Dr. Ralph M. Waters was the godfather of cyclopropane and this study presents nothing new, recording only a substantiation of the theses announced by Dr. Waters. In the beginning, the pioneers in this work warned us of the inherent dangerous potentialities, such as fatal obstruction due to laryngeal spasm, respiratory arrest and extreme bradycardia. Therefore we proceeded with caution and gained experience through many harrowing episodes.

During 1937 and 1938 to date I personally have given 700 anesthetics using cyclopropane. Without inflicting an exhaustive analysis, I will enumerate

the salient facts. Of the 700, there were 302 laparotomies with the following distribution:

	No.	Cyclo. alone	Cyclo. ether	With spinal for pain	For psychic effect
Appendix .....	99	22	68	5	4
G. B. & Stomach.....	40	3	5	11	21
Pelvic Operation .....	107	20	53	17	17
Caesarean Section .....	26	9	12	1	4
Misc. Laps. ....	20	8	4	4	4
Incisional, epigastric & umbilical hernias	10	5	1	—	4
Total Laps. ....	302	67	143	38	54

Grading my own satisfaction, there were only two patients who were absolutely recalcitrant. Both were muscular ones, first a gall bladder operation and then an appendix operation. Starting with spinal, which inexcusably failed, we added cyclopropane to an almost unreasonable limit but without avail. Closed supplementary ether likewise was ineffectual and, struggling with open ether given copiously, the operation fought its way to an inglorious end. I narrowly escaped one anesthetic fatality. A young robust male with an inguinal hernia suddenly became pulseless and respirations ceased. I was not so alarmed until the pupils dilated and then, in addition to oxygen insufflations, I resorted to manual artificial respiration. The operation was resumed and he recovered, but I can still hear the flutter of the angel's wings and the approach of the low swinging chariot. Of course, anesthesia is far from being a mathematical science, and its enticing lure is its very uncertainty.

There were 398 extra-peritoneal operations and cyclopropane was used alone with not more than 10% requiring supplemental ether or vinethene. The deaths totaled 27, rate of 3.8%. Of them, 15 deaths followed the laparotomies, a rate of 5.0%. So far as I know the surgeons have agreed with me that no deaths were attributable to the anesthetic. True, 12 of them died within the first 48 hours. Eleven of them were class C or D risks. Three of them were hopelessly moribund from profound sepsis; 3 were almost inoperable malignancies; 3 died from shock incident to ruptured viscera; 1 was a poor-risk cholecystectomy; 1 died from peritonitis following a pelvic abscess, and 1 was an unpredictable cerebral embolism eight hours after a perineorrhaphy in a well woman aged 66. This was the only case in which an unguarded prognosis had been made. The other deaths ensued after 3

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to 60 days from causes evidently disassociated from the anesthetic. Of 5 cholecystgastrostomies, there was one death from suppurative parotiditis. Of 4 gastrojejunostomies, there were no deaths. Of 25 cholecystectomies, there was one death from shock—a gangrenous gall bladder removed from necessity and not from choice. Of 5 cholecystostomies, one died from a ruptured gall bladder and subphrenic abscess. Twenty-six Caesarean sections were performed with no deaths, although we had one acute gastric dilatation with recovery. All babies were born alive. There were 30 thyroidectomies and 52 sub-hysterectomies with no deaths. Many current reports give the mine run mortality of appendicitis as about 10%. Our appendectomies were 99 of which 87 were clean cases with no deaths and 12 drainage cases with 2 deaths, a total rate of 2%. The oldest patient was 80 and the youngest 7. Altogether there were 19 in the seventh and eighth decades, with 3 deaths, certainly not exceeding the expectancy. There were 498 females, or 70%, and this preponderance probably reflects the prevailing proportion elsewhere.

Anesthetic complications were rare, and there were no deaths in that category. There were four instances of atelectasis of such proportions as to require CO<sub>2</sub> and O therapy, all recovering in a few days. One patient had postoperative broncho-pneumonia with recovery.

In the *Journal of the A.M.A.* of April 2, 1938, Jones and Burford reported four deaths following quickly after the administration of cyclopropane. Autopsies showed massive collapse of one or both lungs.

"When the alveoli of the lungs have lost the supporting properties of the inert gas nitrogen, conditions are present which favor atelectasis. Add to this, shallow respirations and general loss of muscular tonus and certain parts of the lungs are not ventilated at all."

Their advice is to be careful to retain the original nitrogen of the expired air as there is danger of the bag finally becoming filled with nothing but quickly absorbable gases. Add helium, especially when the operation is too long. It will remain and serve as the inert gas. Nausea and vomiting were really inconsequential and where present could be influenced by excessive intra-abdominal manipulations, idiosyncrasy to morphine, residual intestinal obstruction or pre-existing toxemia, not to mention those who become nauseated when confronted with any psychic assault.

Pre-medication to my mind foreordains success or failure. If you have a nervous, sleepless patient tossing all night and just ready to quiet down when the early morning enema is given, followed by the re-sterilization of the field, then the patient is wide awake and apprehensive again. This is a perfect set-up for a tired heart, a stubborn defense and a higher metabolic rate. A barbiturate at bedtime sufficient to produce sleep, with 3 grains of sodium amytal two hours before and repeated one hour before, followed by pantopon grain 1/3 and scopol-

amine grain 1/200, is my usual custom. When rushed for time, I use seconal because of its speedier action. Likewise, in gall bladder operations I use seconal because of more rapid detoxification. Children under 16 receive nembutal. In stomach operations or inability to retain, insert the capsules per rectum. The object is to produce a basal anesthesia at the start. I am aware of the objections to prolonged postoperative narcosis in that it predisposes to pulmonary complications and thrombophlebitis, but my experience with what we use is satisfactory. The patients are unanimous in their praise of the plan as they are unaware of the trip to the operating room until hours afterwards.

I am not unmindful of the synergistic effect of barbiturates, opium, scopolamine and cyclopropane in decreasing the tidal respiration. Cyclopropane does not produce hypersalivation and atropine is not indicated, while the amnesic effect of scopolamine is highly desirable. With atropine you produce dehydration of the respiratory mucous membranes and viscid plugs are undoubtedly an etiological factor in atelectasis. Hyoscine is known to render postoperative patients unruly, but I have not seen any delirium from fresh scopolamine tablets. By no process of ratiocination can I explain why I prefer pantopon to morphine. I just like it. Avertin is rarely used except in alcoholics, psychotics or where opium or the barbiturates have previously exhibited untoward effects. Our surgeons accord us the privilege of consultation and dictation of all preoperative medication. I confess to liberality and seldom decline to give a general anesthetic. If a patient has been able recently to pursue ordinary activities I assume that he can withstand the risk. Otherwise, heart murmurs, pulse irregularities and moderate dyspnea constitute no objection when sustained by the hyperoxygenation. So far as I know, no investigators have unequivocally condemned cyclopropane because of electrocardiographic interpretations.

#### INDUCTION TECHNIC

The closed circuit filter is always used for economy, safety, perfect calibration of the gases and retention of water vapor. The gas is warmed by body heat augmented by the chemical reaction between the soda lime and the carbon dioxide. Never fail to wash the mask with soap and water and flush the tubing, allowing a film of water to remain on the intima of the tubes as a precautionary device against static. Insert pharyngeal or nasal airways early and frequently. I use the McKesson apparatus which formerly was unsatisfactory but now has a larger bore, circle filter, horizontal flutter valves and dry float gauges. The mode of administration varies and each has its advocates. Some prefer the acceleration method and some the trickle method, but I proceed as follows: Fill the bag one half full of O. After one minute of acclimatization, run in 750 cc. of cyclopropane per minute for two minutes (debilitated patients one and one half minutes) determining as soon as pos-



sible the maintenance consumption of O, which is usually 300 cc. per minute. Test the palpebral reflex and, when that is lost, start the preparation. When the incision is made it may be necessary to add 100 to 200 cc. more. From then on you need only to replace the loss caused by diffusion through the skin, rubber tubing and bags. No more is needed after the peritoneal closure is begun.

Although the patient is insensible to skin pain after two minutes, I believe that cellular saturation and proper stabilization requires five or six minutes. Whatever you watch, do not let any respiratory movement escape your attention, from start to finish; note the rate, rhythm, depth of excursions, and the relative difference between inspiration and expiration. A danger signal is intercostal lag, especially when the respiration is diaphragmatic only. In my early experience I became panicky when the breathing stopped and I gave artificial respiration but now I find that insufflation with bag pressure is sufficient to restore the automatic mechanism, and I exhibit no concern that is discernible to the surgeon. If pushed too fast, you may encounter inspiratory stridor, but such mechanical dyspnea is relieved by diluting the mixture with oxygen and helium.

I am not a gas fanatic, and without shame, add one-fourth to one-half ounce of ether rather than jeopardize the patient with any possible overdose of cyclopropane. It secures relaxation, is not noticed by the patient, and moist warm ether in this quantity is not harmful but rather a healthy stimulant. When respirations deepen, do not always conclude that the anesthesia is too light. Perhaps you should change your soda lime. Reduce the oxygen concentration near the end and do not suddenly change from pure oxygen to air as apnea or cyanosis may ensue. Do not allow any patient to leave the table until some one or more reflexes are again established, such as lid reflex, global oscillation, incipient swallowing, or phonation. In doubtful cases, and perhaps there should be no exception, follow the patient to the room and do not leave until assured that a qualified attendant will remain. Place the patient in the lateral Sims' position or, if that is not permissible, leave the airway in until it is voluntarily ejected. A change in position every thirty minutes is of value.

#### INDICATIONS

Routine anesthesia is a degradation of the art but if perforce I was limited to one agent, I would select cyclopropane, reluctant as I would be to disinherit ether, the time-honored bulwark in a storm. The sole contra-indication would be an inept anesthetist or no surgery required. So much in principle but in practice, I except tonsillectomies or any operation on small children in which case I apologetically revert to the oil of bitter orange—ethyl chloride-ether sequence. When the operation is to be prolonged and with a low pain index such as open bone manipulations, I use avertin as a basal. Spinal is reserved for ruptured gastric or duodenal

ulcers, gall bladder operations particularly in the obese, acute gangrenous appendix in muscular men, bowel obstructions and ventral hernias. Prostatic resections do better under spinal. With cyclopropane, there might be an explosion of excreted gas in the bladder from the electrical conduction.

Previously in using spinal we ignored minor discomfort, apprehension and pallor, but now we supplement with gas on the following counts:

1. To start the skin incision earlier in high cases.
2. When the effect of the novocaine is slow in action.
3. For the garrulous patient who worries about being awake.
4. During deep traction on mesentery, gall bladder or stomach for which spinal often offers no relief.
5. For prolongation when spinal runs out which it does usually after 75 minutes.
6. When spinal is wholly or partially inefficient, due to imperfect penetration, epidural injection or perhaps to some idiosyncratic tolerance to novocaine or to any other anesthetic for that matter.

In many laparotomies and rectal operations there is an asymptotic approach to the flaccidity realized under spinal. In workmen's compensation hernias its use avoids the danger of residuary backache, paralysis and paresthesias which the astute lawyer can call traumatic spine. Vaginal operations are unbelievably easy with this gas. Thyroidectomies are satisfactory in a light plane while the high oxygen requirements are supplied to the utmost. Diabetics and exsanguinated patients are carried through safely and with less time consumed than when local is employed. Toxemia is not accelerated and blood dyscrasia is not exacerbated. Mixtures of cyclopropane and oxygen are within the range of explosibility but under the strictest of precautions may be used in cauterization of cervix or hemorrhoids or the electro surgical incision and coagulation of breast amputations. All the literature cautions against anoxemia, and it has always been inexplicable to me why nitrous oxide is given nonchalantly in the best circles with color traversing the scale from Harlem high yellow to Senegambian midnight.

#### CONCLUSIONS AND OBSERVATIONS

These 700 administrations encountered a minimum of anesthesia grief. There was an absence of sweating with a reduction in the loss of water vapor, necessitating fewer subs. It is superior to nitrous oxide in producing no subjective symptoms such as hallucinations or tinnitus aurium. Cyclopropane exercises disciplinary effects on the lazy anesthetist as one must be on the *qui vive* continuously. To all the other shiny gadgets on the modern gas machine, I would add a compass, for the signs are few and far between and one may easily become disoriented. In a given case, granting that a general anesthetic is advised, I know of no disability which is a contraindication. Neophytes

should beware, but for the true anesthesiologist, this method is streamlined for his use. I use minute quantities of ether deliberately and not as a subterfuge or a clandestine potentiating agent. Perhaps the ether is unnecessary but every man has his peculiarity or superstition, and whether or not it helps the patient, it relieves my mind because it is a recognized respiratory and circulatory boost. Like spinal, the intricacy of cyclopropane anesthesia baffles the nurse technician and so is bound to enhance the prestige and demand for qualified medical anesthetists. I have no hesitancy in recommending cyclopropane with respect to acceptable induction, safe maintenance, freedom from deleterious bequests to the vital organs and uneventful, uncomplicated recovery. One apodictic observation merits repetition. The man is more important than the agent. Use what *you* get the best results with and not what is proposed by another.

In conclusion may I paraphrase the epitaph of a noted doctor who died in Bermuda. I read this on a marble tablet in St. Peter's Cathedral, located in St. George's, the oldest Anglican Church on the Western Hemisphere.

I believe that the anesthetist equipped to give cyclopropane and expert in its use will have a life of singular complacency of manner, joined with many useful talents. He will mitigate in others the evils of life and bear them in himself with temper and philosophy. Among the many surgeons with whose work he is associated, he will contrive to compose differences, restore ancient and interrupted friendships and promote peace, harmony and a mutual good understanding.

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E. T. ZARING, M.D. (Terre Haute): I believe you will all agree with me that to try to add or detract from this paper would be a shame.

I am not an old hand at cyclopropane. I gave my first one not long ago. I do not think that cyclopropane is a panacea. I think we still are looking for an ideal anesthetic. Anyone who gives cyclopropane must be a good anesthetist. He must watch every detail, because it acts so quickly, and any complication that comes, comes *now* and not after while. It seems as though cyclopropane has no contraindication. It is good in the strong, in the muscular; it is good in the old and weak, and in the young. It is pleasant to take. I have never had a patient complain of it, and they want it again if they have to have an anesthetic. I believe that is about all I have to offer.

We work with the same surgeons and in the same community and in the same hospital, but we have just a little difference, like everything else. I do not load my patients quite as heavily with the pre-anesthetic as Dr. Combs. I am still a lover of morphine more than I am of pantopon. I like pantopon in the aged, but I still use morphine in the younger ones.

Our fee system is satisfactory at present.

J. R. YUNG, M.D. (Terre Haute): Having heard this splendid paper by my friend, Dr. Charles N. Combs, and the discussion by Dr. Zaring, I wish to add that the profession in Terre Haute, having placed anesthetists on a private fee basis, fairly remunerative, have brought about a friendly competition among anesthetists in which each is eager to be the first to use the newer tried anesthetic agents. This eagerness resulted in our early use of modern spinal anesthesia of which investigation of priority of its use in Indiana gave precedence to Lafayette by a month or so. We suffered, of course, the usual adverse criticism extended to pioneers but I am glad to add we suffered no fatalities due to the careful study and administration of the agent by our anesthetists. Dr. Combs has given an enthusiastic exposition of the use of cyclopropane and its exacting administration which one fully approves. It is well to emphasize his observation that it is better to add a little ether in its administration for a while rather than force deepest relaxation with cyclopropane alone. It has been our observation that unusually deep or long continued lighter cyclopropane anesthesia has produced the day of, or later, fibrillation or other cardiac irregularities in some of our patients. However, in none did a fatality occur.

We surgeons of Terre Haute feel that we can render service to a wider group of patients and that we have a lower mortality by having expert anesthetists who are alert to the advantages of newer agents and methods of anesthesia and select that which is best for the patient and type of operation to be performed.

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F. T. ROMBERGER, M.D. (Lafayette): About four and one-half years of experience with cyclopropane in Lafayette has been most agreeable, and I heartily agree with practically every word which Dr. Combs has written in his paper.

I believe that cyclopropane anesthesia should become a part of the armamentarium of every specialist in anesthesiology. I would like to give an experience with regard to this thing we speak of as pulmonary collapse, partial or complete atelectasis, and the like. From an educational standpoint, if we go back in our physiology, we know that our physical economy has been adjusted, let us say, to a mixture of twenty per cent oxygen and eighty per cent of inert gas, which, in the ordinary air, happens to be nitrogen. Now we must think of the probability of introducing, or rather, first, of exhausting all of the nitrogen and then introducing a one hundred per cent anesthetic gas. That may require certain physiological adjustments and I believe, as Dr. Combs has pointed out, that we will have less of this pulmonary complication if we do not exhaust all the nitrogen. In fact, for a great many years, going back twenty years or more, the administrator of nitrous oxide anesthesia soon learned, from an actual clinical viewpoint, there were certain benefits in allowing the patient to have a little air once in a while. Oftentimes,



with nitrous oxide anesthesia, the patient would not be quiet, or would not relax, and the anesthesia would not be satisfactory. If you merely lifted the mask and let the patient have one or two breaths of air, from that moment on it would smooth out astonishingly. I carried that experience over to our use of cyclopropane and oxygen, and I often give those patients a breath of pure air. And another thing which I have done in the past several years which may be of help (please understand that I don't wish to pose as one who knows everything about everything, but I am giving you first-hand information of what has occurred under my own hands)—I often have observed that a very admirable way of giving cyclopropane is to start out with ordinary nitrous-oxide-oxygen, then add a trickle or more of cyclopropane, just as you might add a

few drops of chloroform or a few cc. of ether to your mixture. You at once will notice that your patient is becoming deeper and deeper. It is but a short space of time until you can cut off your cyclopropane. You thus will not have exhausted from the physical economy of the patient this inert gas, and you will have reintroduced a supplementary inert gas, nitrous oxide, for that is really what nitrous oxide is. It is an absolutely chemically inert gas. Though it produces its anesthesia by sub-oxygenations of the brain cells, even in those cases I oftentimes add a little air. That isn't going to hurt. But you must watch. I wish to re-emphasize Dr. Zaring's and Dr. Combs' warning, that is, we must be good anesthetists and alert anesthetists. Especially is this true when we are handling cyclopropane.

## NON-TUBERCULOUS URINARY INFECTIONS IN CHILDREN\*

H. O. MERTZ, M.D.

INDIANAPOLIS

Our understanding of urinary infections in children has advanced rapidly during the past two decades. This progress has resulted from an appreciation that an infection of the urinary organs in a child differs little in its essentials from a similar disease in the adult. The routes of the transmission of an infection to the urinary organs in a child, and the pathological changes in the tissues involved by the infection are the same as when a similar disease occurs in later life. The variability of the pathological changes in the kidney, which may give rise to similar symptoms, is as marked in the child as in the adult, and the same forces which influence the localization, the duration and the severity of a urinary tract infection in the older patient are present and influence the disease in a similar manner in the child. An acute, mild infection in the child may become chronic, and as a result, probably many urinary infections in the adult have their beginning in childhood. An appreciation of these far reaching results of such an infection in a child but increases the necessity for greater care in their treatment. Improved methods of examination have made the diagnosis of these diseases comparatively simple, yet the difficulties encountered in their successful management may be great.

While urinary infections may be limited to the bladder, most often the kidneys and ureters are also involved.

Infections of the urinary organs may be tuberculous or non-tuberculous, and they may be acute or chronic.

Non-tuberculous infections of the urinary organs in children are due to a bacterial invasion of these tissues and occur most often before the child is two

to three years of age, or during the diaper period of life. They are found more often in girls, in from 60 to 70 per cent of the cases. It is probable that if more care were given to the examination for urinary infection in young boys this reported greater incidence in girls would not be so marked.

Urinary tract infections are secondary to an infection elsewhere in the body, and they occur frequently when nasal, throat and chest infections, and when gastro-intestinal infections are prevalent. Dehydration, debilitation and malnutrition are predisposing factors to the localization of the infection in the urinary tract.

Recent studies of the bacterial content of the urine have explained many of the variations in the effect of various drugs upon an existing urinary tract infection as due to the type of the organism present in each case. While hard and fast rules in the employment of the various drugs, based upon their specific effect in the presence of a given type of infection, are not possible, yet sufficient information is available to indicate that they frequently have a selective antibacterial action and should be administered with this in mind. A great difficulty encountered in applying drug therapy in children in combating a urinary infection, when a bactericidal effect is the guide, is the marked tendency for the development of an acidosis in the young child with a fever. Because of this, frequently an indicated drug therapy can not be followed to its desired degree. The almost universal practice of treating acute urinary infections in children by giving alkalies is probably beneficial, not so much because it combats infection as that it overcomes the threatening acidosis.

The predominating symptom of a non-tuberculous urinary infection, whether acute or chronic, is fever, and the most valuable laboratory finding, in

\* Read at Post Graduate Course, Crown Point, Ind., October 13, 1938.

making a diagnosis, is bacteria, pus or blood or any combination of these three in the urine. Frequently there may be a localized fullness with some muscle rigidity over either kidney. Generalized abdominal pain, or an abdominal discomfort associated with a gaseous distention and nausea or vomiting may occur, and in the young child these symptoms often will suggest the presence of a primary gastrointestinal disease. Bladder functional symptoms, when present, are of value in attracting attention to the urinary tract as the source of the symptoms. However, a well developed infection of the urinary organs may exist without symptoms of urinary frequency, urgency or pain when voiding. Seldom will a non-tuberculous infection in a child result in gross hematuria as its principal symptom.

Because of the general employment of excretion urography in urinary diseases in children, it will be well to note its virtues and limitations in urinary infections. Excretion urography is an especially valuable procedure in examining children for urinary tract disease but it has very definite limitations in diagnosing early inflammatory changes in the kidney. In a kidney infection which is not complicated by a urinary retention, a foreign body or a tumor mass, the intravenous pyelogram will fail to give information of differential diagnostic value in many instances. In the presence of these three diseases, however, the infectious process frequently can be localized and its identity determined by means of excretion urography. When the inflammatory changes in the kidney are not marked, as in simple pyelonephritis, pyelocystitis, etc., whether acute or chronic, with no anatomical distention or distortion present, intravenous pyelography frequently will fail to visualize the diseased process, and in many instances a comparison of the two pyelograms will not justify an opinion as to which side is involved when the disease is unilateral. In the presence of pus in the urine a normal appearing intravenous pyelogram is insufficient evidence that this kidney is free of infection. In such circumstances such a diagnosis can be made only by examination of ureteral catheterized specimens of urine.

While intravenous urography will enable a diagnosis of a urinary tract disease without instrumental investigation sufficiently often to warrant its routine employment before cystoscopy, in infectious diseases of the kidney such as are now being discussed, frequently it must be supplemented by a complete urological examination before a satisfactory diagnosis can be made.

The same precautions should be employed in collecting the specimen of urine from the child as are necessary in the adult patient. In the boy a voided specimen most often will be satisfactory, while the female child should be catheterized. Vulvitis and vulvo-vaginitis are not infrequent in children and the secretions from these diseased tissues will contaminate a voided specimen and the pus and bacteria in the urine would indicate a pyuria was pres-

ent when a catheterized specimen from the bladder might be pus free and sterile.

While there may be some variation in the clinical course of a urinary tract infection, dependent upon the age of the patient, the tendency to consider all urinary infections in the infant and child as evidence of a *simple pyelitis* or *pyelonephritis* is untenable. There are two clinical types of non-tuberculous urinary infection in infancy and early childhood. In each, the symptoms are sudden in onset, they are severe in degree, and the disease follows an acute course. In the first type of urinary infection, however, under adequate treatment, the symptoms will disappear by the fourth or fifth week, the urine will be free of pus and bacteria, and there will be no evidences of the recent infection remaining. In such an instance of acute spontaneous pyelonephritis, the child fully recovers. In the second type, while the onset is similar in character and severity to that of the first, there soon appear evidences of a variation in the clinical course of the former. There is a prolonged duration of the acute symptoms and the disease becomes chronic with a persistence of the pus or bacteria in the urine. While, after a few weeks, other than the presence of these abnormal urinary findings, the patient may apparently be fully recovered, such a child has remaining a chronic urinary infection which will reassert itself in the so-called acute exacerbations or recurrences at varying intervals.

In infections of the urinary organs the bacterial invasion of the kidney may be the principal and the sole disease present. Recovery from the infection may be expected when the patient is adequately treated by the generally accepted methods. This type of infection constitutes the majority of acute urinary infections in childhood and it is readily recognized as an uncomplicated pyelitis or pyelonephritis. It is the type one clinical case referred to above. Again the infectious process in the kidney may be accompanied by a second distinct disease of the urinary tract. This may in itself be more important to the continued integrity of the kidney or to the patient's life than is the urinary infection alone. Also, this added condition invariably influences the course of the urinary infection and is responsible for its resistance to treatment by ordinary therapeutic measures. This is the second clinical type of urinary infection mentioned above and is a complicated pyelitis. The infection is not eradicated by the ordinary means employed. The successful management of this second clinical type differs most in that a recognition of the complicating condition to the infection is necessary. Frequently the successful treatment of the urinary infection will depend upon the nature of the complicating disease. Successful removal of this accessory factor to the infection is necessary and when possible this will result in the marked improvement or cure of the urinary infection. If the accessory factor is allowed to remain, the in-



fection will continue and the damage to the urinary organs will increase.

When treating a pyelonephritis in children, a search should be made for such an accessory factor when the pyuria persists for more than four or five weeks or when recurrences or exacerbations occur. To persist in the treatment under these circumstances without such an investigation is endangering the child's ultimate chance of recovery and such a plan of management should be discouraged. When treating urinary infections in children, an understanding of these two very different clinical types of the disease should be clearly in mind.

A chronic pyuria in a child should be approached in the same manner as when present in the adult. When an acute urinary infection in a child does not respond readily to treatment or when the child has a chronic urinary infection when first seen, in most instances urinary stasis is present in some portion of the urinary tract. The retained urine harbors the infection and the urinary stasis is the result of some interference with the free flow of urine. The presence of the static urine lowers the local resistance of the tissues to bacterial invasion and not infrequently urinary stasis is the main cause for the primary localization of an infection in the urinary tract. The obstruction may be congenital or acquired, and it may occur at any point along the urinary tract from the collecting tubules in the kidney to the external urethral meatus. Regardless of its location, eventually all of the urinary organs situated above the point of obstruction are damaged and their normal function is interfered with. The types of obstruction which should be searched for are a meatal or urethral stricture, vesical neck obstruction, neurogenic bladder, any one of the various ureteral anomalies, foreign bodies, urinary stone or tumor, pressure upon the conducting channels of the urinary organs, etc. A successful treatment of chronic urinary infection will depend upon the nature of this accessory factor. If it can be eradicated and the free flow of urine be re-established, the infection may be eliminated. If the stasis can not be relieved, all therapeutic measures are prone to fail.

In the treatment of an acute urinary infection in a child, the child should be kept quiet, lying in bed if possible. This bed rest should continue for five days to a week after the fever has subsided. As a rule the child with an acute urinary infection of any severity will eat very little and the diet is composed principally of fluids. The ketogenic diet is very unsatisfactory in the acute urinary infections in children and because of the anorexia, nausea and vomiting, as well as the tendency for the development of an acidosis, it is actually contraindicated in the young patient. The child with an acute urinary infection should be given large quantities of fluids. This may be given as water, as fruit juices or a 10 per cent solution of glucose may be tried. If gastric intolerance prevents retention of the fluids, they may be given by rectum, by clysis or by intraperitoneal injection. If cardiac

failure occurs and the patient becomes water logged, the fluids must be restricted.

Thorough cleansing of the intestinal tract is imperative. Enemas or mild cathartics by mouth may be employed.

Mention has been made of the development of an acidosis in the child with an acute urinary infection. This is readily detected by determining the  $\text{CO}_2$  combining power of the blood. While the treatment of an acidosis may be successful through the use of alkalies, in many instances it is best treated by administering glucose. This may be given by mouth, hypodermoclysis, or in the vein. Other than the administration of alkalies, probably not much benefit is derived from the various drugs designated as urinary antiseptics in acute pyelitis. Frequently they do more harm in the acute infections through aggravation of the gastric irritability than good through any specific action upon the urinary infection.

Occasionally in the very acute case, when by the end of a week there are increasing local evidences of advancing renal involvement, ureteral catheterization may be undertaken. Seldom will this be necessary and anchoring a catheter in the ureter of these acute cases is infrequently resorted to.

As stated above, by the fourth or fifth week the patient with an acute urinary infection should be recovered of the infection and the urine should be free of pus and bacteria. If this does not occur, then the case should be considered as a chronic urinary infection, and a very different plan of management should be instituted.

In chronic urinary infection a complete urological examination should be made as the successful treatment will be dependent upon an accurate diagnosis.

In the chronic case the fundamentals of the treatment are: forced fluids, elimination of urinary stasis, and suitable medication. The necessity for plenty of fluids and a thorough cleansing of the bowel are evidenced by the frequent marked improvement in a chronic urinary infection when but these two measures are employed.

The diet differs in chronic urinary infection from that in the acute infection, as more active measures should be taken to maintain the nutrition of the patient in the former. If the ketogenic diet is used, accuracy in following the details of the diet are necessary. This treatment will be more successful when the child is hospitalized. The ketogenic diet has been supplanted somewhat by mandelic acid which is easier for the physician to administer and for the child to take. When either the ketogenic diet or mandelic acid is used, the child should be watched for the development of an acidosis. Sulfanilamide has a special field of usefulness in the urinary infections in children. It has the advantage of remaining active when large quantities of water are taken by the patient, and its efficiency is probably increased, and its untoward results certainly lessened, when combined with an alkaline medication. The maximum dose of five grains per day for

each ten pounds in weight, until the older child is receiving fifty to sixty grains each twenty-four hours, will probably seldom be advisable. The appearance of untoward symptoms indicate a need for reducing the dose or its discontinuance.

Urotropin is still frequently given. The beneficial effects will depend much upon the degree of acidity of the urine and the size of the dosage should be larger than that usually advised. With a child under close observation the dosage of this drug may be gradually increased until forty to sixty grains are given each twenty-four hours.

Many other drugs are recommended for the treatment of urinary infections in children. However, in the case of acute, spontaneous urinary infections, extensive drug therapy other than alkalis will seldom be necessary, and in chronic, complicated urinary infections, regardless of what drug may be administered, the sheet anchor for successful treatment is the elimination of stasis. This will

be met by the removal of the cause, as meatotomy in the meatal stricture, nephrectomy in pyonephrosis, the removal of a tumor or of stones, the elimination of kinks and angulations in the ureter, the division of bands compressing the ureter, etc. Also, instrumental drainage of the urinary tract by urethral or ureteral catheter frequently will be necessary. When the renal infection has resulted in a carbuncle or perinephritic abscess, surgical drainage of the infected area is necessary. If pyonephrosis or large infected hydronephrosis is present, nephrectomy most often must be done.

In conclusion, non-tuberculous infections of the urinary tract, when acute and uncomplicated by stasis, tend to be self-limited and will recover in from four to six weeks. When urinary infections are accompanied by urinary stasis, they tend to become chronic and their cure will most often demand the elimination of the obstruction to the free flow of the urine.

1711 NORTH CAPITOL AVENUE.

## REPORT OF A NATIVE CASE OF INFECTION BY THE FISH TAPEWORM, *DIPHYLLOBOTHRUM LATUM*\*

WILLIAM HUGH HEADLEE, JOSEPH M. KMECZA,  
and RAYMOND M. CABLE

LAFAYETTE

In recent years there has been an increased interest in human infections of the fish tapeworm *Diphyllobothrium latum* in the United States, particularly since the report of several native cases of infection makes it seem probable that endemic centers of infection may be established and assume considerable importance. It should, therefore, be of interest to zoologists and physicians to have a report of another native case which adds to the already growing list.

The worm recorded here was obtained from a patient of Logansport State Hospital (Indiana) during the course of a routine survey to determine the incidence of intestinal parasites among the patients. On examining a stool from one of the patients, numerous ova of *Diphyllobothrium latum* were found. Oleoresin of aspidium was administered and the worm removed. The major portion of the worm, measuring 3,344 mm., was recovered but the head was not obtained.

### CASE REPORT

G. B., female, aged 45 years, born at Vandalia, Michigan. Her parents were born in Michigan, and it is not known that they resided outside the state. The patient was admitted to Logansport State Hospital (Indiana) September 20, 1930. Previous to admission to the hospital she had lived at Mishawaka, Indiana, for eleven years.

The clinical history obtained was as follows: pneumonia, 1916; mastoiditis with operation, 1928; admitted to Logansport State Hospital, 1930, diagnosis dementia praecox, catatonic; had 4+ Wassermann and vaginal smear positive for gonococcus; diarrhea, October 10, 1931; erysipelas of face, March 20, 1933; exacerbation of erysipelas of face, April 6, 1933; edema of ankles, tachycardia, icteric tint of skin, February 16 until November, 1934; nausea and vomiting for 36 hours with reappearance of jaundice March 3, 1936; pulmonary hemorrhage and hematuria, April 20, 1936; vaginal bleeding and epistaxis, April 20, 1936; diphyllbothriasis latum, April 19, 1937; worm of *D. latum* removed by treatment May 8, 1937. Syphilitic treatment was administered and blood tests have been negative since December, 1930. Stool examinations September 10, 1937, and September 20, 1938, were negative for ova of *Diphyllobothrium latum*, indicating that the entire worm must have been removed at the time the treatment was administered.

Table 1 embodies the records of blood examinations of this patient over a period of more than four years, including the pre- and post-treatment periods. Because of the numerous complicating factors concerning the patient's health, it is difficult to interpret these results in reference to the influence that the worm infection may have had on them. It is interesting to note the erythrocyte count, which shows a marked increase in this element of the blood following the removal of the

\* From the Parasitology Laboratory, Department of Biology, Purdue University. The authors are indebted to Dr. C. L. Williams, Superintendent of the Logansport State Hospital, of Indiana, for the opportunity of reporting this case.



TABLE I. RESULTS OF BLOOD EXAMINATIONS

Date	Erythrocytes (per cu. mm.)	Hemoglobin	Color Index	Leucocytes (per cu. mm.)	Per cent Polymorpho- nuclears	Per cent Eosinophils	Per cent Basophils	Per cent Small Lymphocytes	Per cent Large Lymphocytes	Per cent Monocytes	Per cent Myelocytes
2-23-34	710,000	.....	2.50	8,700	40.0	1.0	.....	.....	.....	.....	.....
7-20-34	1,110,000	30	1.35	.....	.....	.....	.....	.....	.....	.....	.....
9-11-34	1,080,000	34	1.57	2,800	45.5	1.0	1.5	36.0	8.5	7.5	0.0
9-28-34	2,510,000	55	1.10	2,800	41.6	3.0	3.0	33.0	12.3	6.0	1.0
11-27-34	3,770,000	81	1.08	8,000	59.0	4.0	1.0	15.0	16.5	3.5	1.0
12-29-34	3,110,000	100	1.61	14,800	59.5	1.5	0.0	28.0	4.0	4.0	3.0
9-19-35	.....	.....	.....	8,800	56.0	3.5	1.0	35.0	2.0	2.0	0.5
4-18-36	89,000	33	1.85	5,800	67.0	2.0	0.0	19.0	8.0	3.0	1.0
5- 3-37	3,830,000	81	1.06	12,000	65.5	2.5	0.0	32.0	0.0	0.0	0.0
9-10-37	4,840,000	82	.....	12,200	63.5	0.0	2.0	32.0	1.0	1.5	0.0
9-20-38	5,060,000	101	1.00	9,200	73.0	0.5	2.5	21.0	1.5	1.5	0.0

worm. A condition known as “bothriocephalus anemia” has been reported to be present in a number of individuals infected with *D. latum*, and in this case the worm infection may have been a contributing factor to the low erythrocyte count. In the average case a leukocytosis and eosinophilia are usually present. Because of the other complications it is difficult to interpret the leukocyte and eosinophil pictures presented.

OBSERVATIONS ON THE HATCHING OF OVA OF  
DIPHYLLOBOOTHRIUM LATUM

A stool was collected from the patient before treatment was administered, communicated with tap water, and strained through gauze to remove the coarse organic material. The ova were concentrated in sedimentation cones, and were washed several times with tap water to further remove organic material, the ova being concentrated after each washing by centrifugation. The ova were then placed in tap water in a sedimentation cone at room temperature, and air was bubbled through the suspension to provide oxygen. Approximately once every twenty-four hours the ova were allowed to settle to the bottom of the cone and the water was changed by decantation. The ova began to hatch on the seventh day and coracidia were found for a period of three weeks.

Numbers of two unidentified species of *Cyclops* were exposed to the coracidia. These were dissected after varying intervals, but no larval cestodes were recovered.

COMMENT

This brings to the records another native case of infection by *Diphyllobothrium latum*, but it cannot definitely be determined whether the infection was obtained in Indiana or Michigan. This report should again stress the point brought out by Lyon<sup>1</sup>, that the fish tapeworm may become a common para-

site of man in the Middle West. Lyon has given an excellent summary of the epidemiology of this parasite in connection with his case reports of infections in this region, and further comment here is unnecessary.

It should be pointed out that Dolley<sup>2</sup>, in his study of the biology of the St. Joseph River, found the first intermediate host of *D. latum* in relative abundance during certain months of the year. Similar surveys of other rivers would likely bring corresponding results. In the above instance (at least during the previous seven years), the sewage with its contained ova would not find its way to the Great Lakes region, but would be carried to the Wabash River, and thence to the Ohio and Mississippi Rivers. Thus an opportunity was afforded for the spread of this parasite to the more southern regions.

The above experiments on hatching of the ova show that they can be hatched rather readily for experimental purposes. Apparently they require considerable oxygen, and the failure of Lyon to obtain hatching may be due to the fact that sufficient aeration was not provided, and the water not changed often enough.

<sup>2</sup> Dolley, John S.: Preliminary Notes on the Biology of the St. Joseph River, *American Midland Naturalist*, 14:193-227 (May) 1933.

ABSTRACT

WARNS AGAINST IMPROPER USE OF BENZEDRINE

The use of benzedrine in place of alcohol for the purpose of “pepping up” or getting a “kick” out of its effects should be discouraged, *The Journal of the American Medical Association* for March 11 warns.

Commenting on recent experiments by an eastern physician with the use of the drug in place of liquor for cocktail parties, as a possible cure for habitual drunkenness, *The Journal* says:

“The Council on Pharmacy and Chemistry of the Association within the last year has published a report, ‘The Present Status of Benzedrine Sulfate,’ which has a considerable number of warnings concerning the use of this preparation by the general public.

“There are several other features apparently overlooked (by the physician who made the experiments), among them the fact that, while alcohol is a dilator of blood vessels, benzedrine constricts them.”

<sup>1</sup> Lyon, M. W.: Infection by the Broad Tapeworm, *Diphyllobothrium latum*, *ibid.* 86:264-265 (January 23) 1920; Native Case of Infestation by the Fish Tapeworm, *Diphyllobothrium latum*, *ibid.* 86:264-265 (January 23) 1926; The Fisht Tapeworm and its Occurrence in Indiana, *Jour. Ind. State Med. Assoc.*, 23:72-75 (February) 1930.

## COMMUNICABLE DISEASES

The fourth of a series of articles on Child Health  
sponsored by the Indiana Pediatric Society.

Although in a broad sense a communicable disease is any which is caused by a micro-organism or germ, as ordinarily used this term is reserved for the common infectious diseases which usually occur during childhood. These diseases are caused by many different kinds of organisms which are not closely related and, as might be expected, produce diseases which are quite dissimilar. Because of these differences, it is impossible to generalize concerning them.

Before discussing these diseases it is necessary that certain phases of any infectious disease be clearly defined. Any infectious disease may be divided roughly into four periods. The first, called the incubation period, represents the time from exposure to the organism until the development of the first symptoms. It is during this time that the organisms are multiplying and gaining a foothold in the prospective patient, but are not yet present in sufficient number to cause illness. During this time the individual is not ill, and is usually incapable of spreading the disease to another person. This lack of infectiousness during the incubation period is important and should be considered whenever quarantine regulations are made, so that the exposed person will not be excluded from outside contact unnecessarily during the early part of the incubation period. The length of this period varies with different diseases, being less than a week for scarlet fever and diphtheria, and longer for the others. The length of the incubation period is also important in connection with vaccination against certain diseases, notably smallpox and rabies, in which the vaccination is rapidly effective, so that the vaccination can be carried out after known exposure, resulting in either complete or partial immunity before the disease has had time to develop.

The second phase is the period of invasion. This is the time when illness begins but has not yet become fully developed, and the characteristic features of the particular disease have not become manifest. In most cases this period is characterized by the development of fever, loss of appetite, thirst, general discomfort and malaise, cough, and many other symptoms. Although certain combinations of symptoms during this period may suggest one particular disease, as a rule it is difficult or impossible for the physician to know with any certainty just which disease is developing. From a public health standpoint this difficulty is important, especially in view of the fact that as a rule the disease is most contagious during this early unrecognized stage. In a great many cases large groups of children are exposed to some communicable disease before it

is realized that the infecting child has anything in particular wrong with him and this fact provides one of the reasons for school exclusion of any child showing symptoms of any sort. The length of this phase varies, but is usually from a few hours to three or four days.

The third stage is that of the fully developed disease, with its characteristic signs. This is usually the time of the greatest illness and, in ordinary cases, is easily diagnosed. The disease continues to be infectious but usually somewhat less so than during the invasion period.

Finally, there is the stage of improvement or convalescence, during which recovery takes place. The time after the illness during which the patient continues to be infectious varies so much with different diseases and with the occurrence of complications that generalization is impossible.

It is common knowledge that certain diseases confer immunity; others do not. The extremes of this are shown in measles and the common cold; after measles the immunity is practically absolute and life-long, whereas the cold seems only to predispose to future colds. This immunity, when it occurs, is not completely understood, and the mechanism of immunity is not the same with different diseases. However, there are certain fundamental similarities, and since diphtheria is perhaps best understood it can be taken as an example.

The bacilli, having lodged in the throat, multiply tremendously in number. From them is produced a soluble toxin which damages the mucous membrane and causes the formation of the typical membrane, and in addition is absorbed into the blood stream and carried all through the body, producing widespread damage. Certain tissues, attempting to defend the individual against this attack, are stimulated by the presence of the toxin to produce an antitoxin which will neutralize it and render it inactive. The production of this antitoxin is a new function, which has never been done before, and in the beginning it is entirely inadequate, so that there continues to be an excess of toxin and the illness continues. In unfavorable cases the body never catches up with the toxin and death results. In favorable cases the production of antitoxin gradually increases so that eventually the toxin is neutralized and the patient recovers. The formation of antitoxin continues for some time, even after the toxin is all neutralized, so that a very considerable amount can be demonstrated in the blood some time after recovery from the disease. Following this the antitoxin in the blood gradually diminishes, and occasionally reaches a very low level. This description, of course, applies to the untreated



individual whose own immunity production has not been modified by proper treatment.

If such an individual sometime later again becomes infected with diphtheria bacilli, he will probably have enough antitoxin in the blood to neutralize the toxin produced immediately, and succeed in warding off the infection without ever having a symptom or knowing that anything is happening. If, however, the blood antitoxin is very low, or the organism is extremely virulent, the disease process may get started and again toxin will be absorbed into the blood stream and again its presence will stimulate the production of antitoxin by the body tissues. This time, however, the formation of antitoxin will be much more rapid and greater in amount than at the time of the first infection, so that one can expect an early recovery from the infection.

It is as if the tissue cells, having had practice on a particular noxious agent, have acquired a skill which permits them to work more rapidly and effectively when they are again called upon to deal with that particular agent.

In the case of other diseases the poisonous material produced by the micro-organism may not be a toxin in the true sense of the word, and the substance produced by the body may not be a true antitoxin, but the general process for practical purposes is much the same. These various substances elaborated by the body for purposes of defense against micro-organisms are tested for in various ways and are grouped under the general term of "antibodies." Their exact nature is unknown.

It is for the purpose of stimulating the tissue cells to produce antitoxin or other antibodies that vaccines are given. The vaccine consists of a preparation of the organisms or virus of the disease in question, which is either killed or attenuated so that the reaction to the vaccination itself may not be too severe but which will, nevertheless, lead to sufficient stimulation of tissue cells that adequate immunity will result. Vaccination is, from an immunologic standpoint, a small imitation of the disease itself. At the present time, and perhaps never, can we expect vaccination to be effective in a disease which itself does not render the person immune. In general it is true that the more often the cells are stimulated to form antibodies, the more efficiently will they do so, which provides the reason for the repeated injections which are necessary for certain diseases. Unfortunately, at the present time, we have effective vaccination for only a few diseases.

Since the individual's own cells are called upon to produce antibodies, in response to vaccination or the disease itself, it is termed an active immunity. The disadvantage of this is that it is rather slowly produced, especially upon the first stimulation, so that it may not keep pace with the demands put upon it in the case of disease. The advantage of this active immunity is that it

is relatively permanent, since the cells, once having reacted to a particular antigen or noxious agent, do so more efficiently on restimulation.

Another type of immunizing procedure much used is the administration of serum from another animal, which has been rendered immune, either by the disease or by artificial active immunization. When such serum is obtained from humans who have recently recovered from the disease it is usually called convalescent serum and when from animals, usually horses, it is called antitoxin or antiserum, depending upon the nature of the antibodies present. Immunity so induced is termed passive, since the antibodies are formed by another human or by the horse and are given the patient already formed, so that his own cells are not called upon to produce antibodies. Sera are used usually upon a patient with an already developed disease, such as diphtheria or pneumonia, or after known exposure to a disease, such as scarlet fever or measles. When given thus early in the incubation period of certain diseases, one may expect that the disease may be lessened in severity, or perhaps prevented entirely.

The advantage of passive immunization, or the use of sera, is that the antibodies may be given quickly, already formed, and thus swing the immunologic balance in the patient's favor, and not be forced to wait for the slower and perhaps uncertain production of antibodies by his own tissues. The chief disadvantage of such immunity is that it is quite temporary, being lost completely as a rule after two or three weeks. Another objection is that in the case horse serum is used, serum sickness may result, which, although not serious, is uncomfortable.

In the case of most of the infectious diseases there is no way of determining accurately, except by the history of disease in the past, whether the individual is immune or not. However, in the case of diphtheria and scarlet fever, reliable information can be obtained by means of the Schick and Dick tests, respectively. In both tests a small amount of toxin is injected into the skin and the point watched for an area of redness. If this redness does not occur, it indicates that there is sufficient antitoxin in the blood to prevent the development of the disease.

It should be emphasized that, in general, immunity is a relative and sometimes variable affair. The fact that a child has once been exposed to a disease without getting it does not mean that he will not get it if exposed at some other time. A negative Schick test, indicating immunity to diphtheria, does not absolutely prove that he will never get diphtheria. The immunity may be partially lost over a period of time, or he may receive a massive exposure to very virulent organisms. This does not mean that immunization against diphtheria is ineffective, but rather that, although it is good, it is not always perfect.

In general the contagious diseases are more

dangerous in the very young child than later. This is particularly true of measles and whooping cough. On that account special care should be taken to prevent exposure of infants. Even the common cold is apt to be much more serious at this age. Very young infants, under six to eight months of age, produce antibodies very poorly in response to vaccination so that, although very early vaccination would seem desirable, it is not advisable because of the poor response elicited.

It is well known that most of the common contagious diseases, with the notable exception of diphtheria, are dangerous to life chiefly because of the complications which may follow them. In many cases the organism causing the complication is not the same as that causing the original disease. Apparently the initial infection harms the patient's defenses, so that other organisms, ordinarily innocuous, are permitted to grow and produce disease. These secondary invaders may be those already present in the patient, or new ones he has picked up from the outside. It seems advisable that cross contacts of the sick patient with other people be reduced to a minimum so that he at least has only his own bacteria with which to deal.

Communicable diseases are spread in a variety of ways. Most commonly it is directly from person to person, that is, from the patient directly to a susceptible individual. Such infection is usually carried in the nasal secretions or sputum and is commonly spread either by direct contact or by means of droplets of infected material which are discharged by coughing or sneezing and which may spread for a considerable distance and may remain suspended in the air for some time. In certain diseases, notably smallpox, the scabs from the skin lesions may contain the virus. In certain intestinal infections the feces and urine may contain the organisms.

Not infrequently infection may be carried by a third person. It may be carried on the hands or clothing. In certain instances, notably diphtheria and scarlet fever, a healthy person may harbor the germs in the nose and throat, spreading them widely, but not suffering any difficulty himself. Such persons are known as carriers.

In the nursing care of patients sick with infectious diseases, it should always be remembered that they are dangerous to other people, and other people are dangerous to them. They should have a room to themselves, and a minimum number of people should have contact with them. Hands of attendants should be scrubbed before and after contact with the patient. Ordinary clothing should be covered with some sort of gown. Infected discharges should be collected in some disposable substance and burned. Dishes should be boiled before being mixed with those used by other people. After recovery, the room and all it contains should be thoroughly cleaned and aired.

In conclusion, the common communicable dis-

eases are listed, together with the prophylactic procedures available at present, where such procedures are of proven merit.

**Diphtheria**—Vaccination with toxoid. Usually done at or just under one year of age. Effective in a high percentage of cases. Immunity should be determined by Schick test.

**Smallpox**—Vaccination preferably done at about one year. Highly effective. Should be repeated every few years. If exposed to the disease, vaccination should be done immediately, whether previously vaccinated or not.

**Whooping Cough**—Vaccination at about eight months. While this does not always prevent the disease, the severity is at least considerably reduced.

**Measles**—There is no vaccination. After known exposure, convalescent serum, or serum from adults who had the disease in childhood, or immune globulin, may be given. If given very soon after exposure, the disease may be entirely prevented. If given later, a mild disease usually results. Under ordinary circumstances it is preferable that the disease be only modified, not prevented entirely, as then a permanent immunity results.

**Tetanus**—Administration of antitoxin after wounds where contamination with tetanus spores is possible.

**Rabies**—Administration of Pasteur vaccination if dog is found rabid. The dog should not be killed immediately, but observed for signs of illness. Except in the case of head bites, vaccination can safely be deferred until it is definitely determined that the dog is rabid.

**Scarlet Fever**—Both prophylactic vaccination and administration of serum to exposed individuals have been used. The value of these has not been universally accepted.

**Typhoid Fever**—Vaccination should be done whenever there is any question of the purity of the water or food supply.

For the other common communicable diseases, there are no effective prophylactic procedures available.

#### ANNUAL "RADIUM NUMBER" MISSISSIPPI VALLEY MEDICAL JOURNAL

The March issue is the Twelfth Annual "Radium Number" of the *Mississippi Valley Medical Journal*, published at Quincy, Illinois. This contains ten original articles, written especially for this issue.

Pohle, of the University of Wisconsin, has an interesting article on angiofibroma and gives a case report showing an excellent result with interstitial radium. Jorstad, of St. Louis, shows the effectiveness of interstitial radiation in certain locations. Levin, of New York City, shows the importance of effective radium therapy in prostatic and bladder cancer. Swanberg, of Quincy, has a statistical study of the five year end-results in 3,759 patients treated for cancer of the uterine cervix.



## SOME OBSERVATIONS ON THE PLAN FOR THE ESTABLISHMENT OF DISTRICT HEALTH UNITS BY THE STATE BOARD OF HEALTH\*

J. H. CROWDER, M.D.

SULLIVAN

It must be understood in the beginning that if any remarks in this paper seem harsh, no animus is intended toward any of the members of the State Board of Health. We have the highest regard for the members of that Board and for their very efficient staff of workers. All of the members of the Sullivan County Medical Society who have had occasion to ask for assistance from the State Board of Health have been met with the most cordial helpfulness and we are under many obligations for their hearty cooperation in the solution of our problems.

The plan of the District Public Health Unit is a new one to us. The newness of the plan, the vastness of its implications, and its sharp divergence from all previous forms of government in Indiana have led us to wish for a fuller discussion of the subject. It is our hope that we may find that this plan is more innocent than it appears, and that our misconception is due to the fact that we live so far outside of the current of modern thought.

At the December meeting of our county society, Dr. L. C. Robbins, of the State Board of Health, appeared and explained what he termed a plan for the establishment of Public Health Units in Indiana. This, we assume, is an outgrowth of the activity of the U. S. Public Health Service following a report of the Interdepartmental Committee created to recommend plans for the coordination of health and welfare activity. The five recommendations as reported by Mr. Arthur J. Altmeyer in an address before the Sixty-seventh Annual Meeting of the American Public Health Association in Kansas City, October 26, 1938, are:

*First.* Expansion through a federal-state program for maternal and child health service by grants-in-aid to states, with the estimated ultimate expense of \$365,000,000.

*Second.* Construction and improvement of hospitals and related facilities where needed at an ultimate cost of \$150,000,000.

*Third.* Grants-in-aid to states for medical-care program for recipients of relief and other persons of low-income groups estimated to create medical care for 40,000,000 people at a cost of approximately \$400,000,000.

*Fourth.* Grants-in-aid for general program of medical care, part of this money to be raised by taxation or health insurance program, this program to include the entire population with no attempt to estimate the cost.

*Fifth.* A program for compulsory sickness insurance covering the entire population of the United States.

May I quote from Mr. Altmeyer?

"The American public health association, I am fully convinced, is at the beginning of a new era in the field of health services and medical care. It seems to me that the time has already arrived when public health administration must be pre-

pared to discard the old separation between prevention and cure."

Whatever the origin of this scheme, the State Board of Health in Indiana now plans to establish one District Health Unit for each one hundred thousand people in the state. In the rural sections of the state this will mean that a public health unit will comprise from two to four counties. These units will be full time health organizations and will consist of a medical director, two sanitary engineers, one nursing supervisor and at least one field nurse for each five thousand people or twenty such nurses for each unit. The medical director is to be a physician who has had special training as a health administrator and the nursing supervisor must have had at least one year of special training and must be experienced in Public Health work. All of this personnel is to be appointed by the State Board of Health.

It will be the duty of the unit to take over the entire supervision of sanitation, water supply, restaurant and dairy inspection, inspection of food handlers, etc. Also the Unit will enforce the quarantine laws, seek out the sources of epidemics, and serve as consultants in the management of all contagious diseases, including pneumonia, tuberculosis, meningitis, typhoid fever, syphilis, smallpox, measles, diphtheria, scarlet fever, etc. The Unit will be clothed with all of the power of law enforcement now granted the State Board of Health.

There are now some five or six such units already established in this state, and when the plan is in full operation there will be some thirty or more districts. Dr. Robbins asserts that no public health unit will be formed in any district until the doctors of such district ask for it. So we infer that such units as are now in operation in our state have been established at the request of the doctors in the district where these units are located.

When and if all of the proposed public health units are established, there will be some 800 to 1,000 new state employees. These are to be appointed by and responsible solely to the State Board of Health. Presumably their tenure of office is for life, since there is no provision for their recall or replacement, except at the will of the State Board of Health.

This plan Dr. Robbins calls a "decentralization" of the State Board of Health. This is the kind of "decentralization" that has made Hitler famous! If you create an army of a thousand government employees trained to perform a special governmental function, clothe them with all of the authority that is granted by the Indiana legisla-

\* Presented at the Secretaries' Conference in Indianapolis, January 22, 1939.

ture to the officers of the State Board of Health, and make them entirely independent of the will of the people governed, you have a "decentralization" that would warm the heart of any dictator. We are not prepared to say that such a plan of public health administration would not, by its efficiency, go a long way toward the solution of some of our public health problems; nor are we prepared to say that a pure autocratic form of government, if it is honest, is not more efficient for the people governed than a democracy, but we are prepared to say that the type of government proposed by Dr. Robbins and the State Board of Health is contrary to all ideas of government that have been entertained in Indiana since she became a state, and that this setting up of such an autocratic health administration is the performance of an act by indirection which, if fully understood, the people would be slow to ratify. It is but another development of the centralized form of government that has been encroaching upon the freedom of the American people for the past few years. It is but another link in the chain of state medicine that is being forged around the doctors of America on the plea that our present social and economic structure is so inadequate. Organized medicine believes the health of the citizen is one of primary interest to government. It does not believe, however, that the government can function in the distribution of medical services as well as the physicians themselves.

There has been no general effort to arouse the public to a sufficient interest in this movement to secure its adoption. Such a course would take many months of arduous labor and acres of propaganda and the ultimate result would be uncertain. The approach is through the medical societies. With the cooperation of the doctors, the plan might be established without popular approval, and once established the people will be powerless to shake it off.

We wonder if the Department of Public Health thought of the ironic humor of asking the doctors of Indiana to sponsor a movement that will fasten upon themselves a scheme that in a few years will rob them of the control of fully half their patients, a scheme that will give over to state medicine all patients who have contagious or epidemic diseases, including pneumonia, and that will in a measure deprive the people of the free choice of a physician. "Remember that the actual work of any system is not performed by idealists or reformers or humanitarians, but by ordinary men, and that when government controls, government dictates."

The doctor has been easy to sell, always, but this is one time he would do well to study the proposition carefully. There will be time enough to approve when the people themselves demand that this far-reaching plan of socialized medicine be riveted about our necks.

It would be interesting to see how the people of Indiana would react to another plan, parallel in its scope, but proposed by some other of the

State Boards. Suppose the State Board of Accounts should announce its intention of placing in each county and township in the state a man specially trained in the management of government finance, these men to be appointed by and responsible solely to the State Board of Accounts and to be clothed with power to take over and manage all county and township business. No one could deny that such a scheme is feasible and that probably it would effect a tremendous saving in money and make for much greater efficiency in government; however, we have a feeling that here the people would see what Booth Tarkington calls "The purchase of an ounce of government with an ounce of liberty," and that they would refuse to make the purchase. Coating over the issues in this public health plan with a sentimental appeal to our sympathies for the under-privileged has somewhat obscured the basic principles involved. We wish to see them as they will appear to us after we have the plan well fastened upon us. If all human activities from birth to the grave are regulated by government, citizens becomes serfs.

Another thought intrudes itself in contemplating so vast a governmental organization in the State of Indiana, where the people have been famous ever as politicians. Does anyone seriously believe that we can appoint 800 to 1,000 state employees in any one governmental function in Indiana and spend a million dollars without the whole organization being captured and manipulated by the politicians of the party in power? Such credulity could exist only in the minds of the very young and inexperienced. As a matter of probability, we would say that these jobs would be dispensed through the patronage secretary before the plan was five years old.

As taxpayers we are interested in the cost of any proposed governmental expansion. We like to compare the outlay with the benefits we are likely to enjoy, and consider whether such expansion is worth what it will cost. Two questions on this phase of the plan were put to Dr. Robbins and he put his answers in writing. *First*: What would be the estimated cost of such a public health unit per year, and how would this cost be met? Dr. Robbins' reply was: "The estimated cost is between \$17,000 and \$23,000 per year. This cost is met by the Indiana State Board of Health and the U. S. Public Health Service. The money comes from the state matching funds." *Second*: Would this plan increase the tax load in the counties that participate in it? To this he replied: "A full time health department would definitely not increase the tax load in the counties that participate in such a program."

Here we have a novel tax situation. It will take from two to four counties to make up a district unit. It will cost from \$17,000 to \$23,000 per year, yet the tax load in these counties will "definitely not" be increased. The money is to be raised by the state matching funds with the United States



Public Health Service. What a wonderful and magical process this fund matching is! It has come into the full flower of its beneficence with the Social Security Program and other recent reforms. Another favorite expression of these reformers is "Grants-in-aid to States." These delightful forms of raising money are supposed to render the taxpayer so nearly unconscious of the operation that he feels no pain, and is happily unconcerned about the cost. These are but new names and a new technique for a very, very old business. They are supposed to lure the mind away from the basic fact that the taxpayer supports both the state and the federal governments and that every dollar raised for any governmental purpose comes directly out of the pockets of the people governed.

If we in Indiana are going to enjoy a health plan that is to cost us a million or two million dollars a year, what can be wrong about our asking to see the price tag before we subscribe for the thing? We should not be deceived by trick phraseology.

The estimate of the cost is \$17,000 to \$23,000 for each district or, when the entire state is supplied with thirty or more districts, the entire annual cost will be from \$500,000 to \$700,000 per year.

Let us make our own estimate of the cost of this plan, as based upon their statement of personnel. Let's employ a full-time medical director, fully trained in the special field of public health administration, at a salary which he could afford to accept, and on the same basis two sanitary engineers and a fully trained supervisor nurse. Then add twenty field nurses, and perhaps a psychiatrist for each half dozen districts. Find office space to house these people, add a few stenographers and enough automobiles to carry on the work. Unless these people will work much

more cheaply than we believe they do, a reasonable estimate would be \$50,000 per unit, or \$1,500,000 for the state when the organization is fully completed. This will indeed mean some very lively fund matching if the tax load is *definitely not* to be increased. Now, what benefit will the people derive from this, the expenditure of another million and a half dollars, by being regimented by another autocratic governmental bureau with its hoard of employees whom we can neither talk back to nor get rid of?

We believe we can all safely concede that it will give us much better and fuller statistics.

Who is it that is demanding this sweeping reform in our health department? It is not the people whose health needs guarding. It is the reformers who have built up a profession for themselves in regulating the affairs of society at large, and who are forever thinking up new schemes that will pay them a salary for supposedly bettering the condition of mankind. Socialized medicine is a political expedient. The need of the politician for votes has more to do with the question than the need of medical care for the poor.

We, the doctors, are asked to give this Health Program our endorsement, for without our endorsement the public might not be receptive.

We of America have never seemed to appreciate fully the blessings of freedom and liberty. We always seem to be looking for an opportunity to barter a portion of these priceless things for any mess of pottage that a reformer may choose to offer. Is it not time that we paused to take stock of our situation? Before we give our endorsement to this plan, with its tremendous potentialities for evil, we should demand that it be opened for debate on the floor of every county society in the state and that any action taken be taken with the unanimous consent of the entire state society.

#### FUNDAMENTAL CANCER RESEARCH

In accordance with the National Cancer Institute Act, approved August 5, 1937, the purposes of which are set forth as "to provide for, foster, and aid in coordinating research relating to cancer; to establish the National Cancer Institute; and for other purposes," Surgeon General Parran appointed a committee of leading scientists to formulate, as far as this could be done, the fundamental aspects of the cancer problem and to suggest various lines of work which merit investigation.

This committee is composed of the following members: Dr. Stanhope Bayne-Jones, professor of bacteriology and dean of the school of medicine, Yale University; Dr. Ross G. Harrison, chairman of the National Research Council and Sterling professor of biology, Yale University; Dr. Clarence C. Little, director, Roscoe B. Jackson Memorial Laboratory; Dr. John Northrop, member, Rockefeller Institute for Medical Research; Dr. James B. Murphy, member, Rockefeller Institute for Medical Research, chairman.

The text of the report\* prepared by this committee is

published in *Public Health Reports*, Vol. 53, No. 48, December 2, 1938.

During the past 30 years of extensive investigation into the problem of cancer, sufficient information has accumulated to justify an attempt at a formulation and clarification of this material that will serve as a basis for future investigation. Three main lines of attack have contributed definite fundamental facts regarding the nature of malignancy, but the difficulty in the past has been that each of these three lines of investigation has been developed independently, taking little account of the knowledge gained in the other fields.

What appear to be the more fundamental data have been selected and tentative conclusions have been drawn as a basis for discussion. The three lines which have yielded the data for analysis are:

I. The study of transplantable tumors which has yielded information on the biology of the malignant cell;

II. The conditions governing the experimental induction of malignant tumors;

III. The part played by genetic factors in the development of cancer.

\* Copies are for sale by the Superintendent of Documents, Washington, D. C., at a cost of five cents.

## EDWARD JENNER—A GREAT EXPERIMENTER\*

WILLIAM NILES WISHARD, Jr., M. D.

INDIANAPOLIS

Experiment is defined as a procedure to demonstrate some fact or general truth, a trial to confirm or disprove something doubtful. The result of experiment is frequently discovery. Before a concrete experiment is conducted, there is, as a rule, an abstract theory, with its resultant contemplation, speculation, hypothesis. It is the business of experiment to test the worth of theory, whether it be false or true. Experiment's tool, careful and critical examination in seeking facts or principles, is research.

Theory without experiment remains sterile conjecture and speculation. Nowhere is this better illustrated in the field of medicine than during the period of depression from 200 to 1500 A. D. when little was done for the advancement of medical knowledge beyond the point where Galen had left it. This reliance on authority and scholasticism began to terminate in the latter fifteenth and early sixteenth centuries, when Leonardo da Vinci questioned the views of Galen, and Vesalius established a scientific tradition at Padua where he applied himself to research. The rebirth of medical science then progressed rapidly, such men as Harvey, Fabricius, Malpighi, Leeuwenhoek, Sylvius, Spallanzani, Morgagni, and others too numerous to mention, illuminating the years of renaissance.

It is not, however, our intent to enter into a detailed survey of medical history. This has long since escaped the boundaries of university halls. One has only to glance over the formidable list of books on the subject written for lay readers, in any public library, to realize that it has "gone popular." The large editions of such current books as *Microbe Hunters*, *Hunger Fighters*, *The Great Doctors*, and *Mystery, Magic and Medicine*, are ample testimony of the avidity of the public to acquaint itself with the men and methods from whom modern medicine has evolved.

It has been said that the practice of medicine is and always will be an art. It rests, however, pretty squarely on its several fundamental sciences. Both art and science are highly specialized, apparently becoming more so every day. As an art it could not fulfill its mission, namely, the relief of suffering, the cure and prevention of disease, without the continued advance of science. Medicine, therefore, acknowledges its debt of gratitude to those benefactors who make possible the erection of large laboratories, great universities and hospitals, as well as large funds for the continuation of research. All, however, is not gold that glitters, the mere physical provender not necessarily en-

gendering ideas, without which no expenditure is profitable. In other words, a large stipend to conduct research on tuberculosis, cancer, or whatever you will, is not all that is necessary for the solution of the problem at hand. Dr. David Cheever,<sup>1</sup> a fine anatomist as well as surgeon, has said, "Research practised by the genius is indeed as nearly divine a work as human faculties can do, and deserves a place beside the gods. But much masquerades as research which resembles it only in name. . . . Research is much more a state of mind than it is an overt act. . . . Edward Jenner, the general practitioner, observing facts and making inferences therefrom, made a research which protected mankind from the scourge which had periodically devastated it." One might also mention William Withering, who, learning of the dropsy-curing properties of foxglove from a Shropshire herb-woman, introduced digitalis long before its exact action in heart disease was understood. On the readjustment which research now awaits, Hans Zinsser<sup>2</sup> says, "It (research) has placed a premium on the mere activity of investigative effort regardless of its intelligence or results. . . . There has also developed a curious halo about research which has exalted it above other and in the absence of talent more useful and less expensive methods of occupying time. . . . For the time being available funds have often outstripped our abilities to use them wisely. . . . High-minded philanthropists have hoped that money could engender ideas instead of being merely the fertilizer which can aid the sprouting of the living seed of a thought. . . . Much work is undertaken merely to justify expenditure; and in well-equipped laboratories many a man and woman is patiently sitting on a lifeless idea like a hen on a boiled egg or is spending time and money in transporting into complicated notations old tunes that have been adequately played in C major. . . . Let us not forget that Archimedes had the idea of specific gravity while taking a bath; that Descartes was lying in bed when he evolved coordinate geometry; and that Isaac Newton (though I don't believe it) is said to have drawn deep deductions first in an apple orchard."

Turning back from our age of complicated specialization let us look into the life of one whose research was conducted by careful clinical observation, whose experimental laboratory was in a sense the cow-shed and who without elaborate equipment discovered the prevention of one of our most decimating diseases.

When the motorist of today goes down the busy

\* Presented before the Indianapolis Literary Club Monday, April 30th, 1934, and before the organization meeting of the Indiana Association of Medical History, Indianapolis, February 15, 1939.

(1) Cheever, D. *Anatomy Eclipsed. Ann. of Surg.* 98: 792 (Oct.) 1933.

(2) Zinsser, H. *The Next Twenty Years. Science*, 74, 397, (Oct. 23) 1931.



highway in western England from Gloucester to Bristol he may take a country by-pass to the little village of Berkeley, two miles westward. Here Edward Jenner, discoverer of vaccination, was born on May 17th, 1749. His father, the Vicar of Berkeley, died when Edward was five. At eight the latter went to school at Wotton-under-Edge, a village near Berkeley. Later, he was put under the tuition of Reverend Dr. Washbourn of Cirencester, making some proficiency in the classics. His bent for natural history was evident at the early age of nine, for he spent the hours of recreation in collecting the nests of the dormouse and searching for fossils. Reverend Stephen Jenner, Edward's older brother, planned for him a professional career. Accordingly, upon completion of his scholastic education, he removed to Sodbury near Bristol, to be instructed in the elements of surgery and pharmacy by Mr. Ludlow, a surgeon of some eminence. In 1769, Jenner went to London where he continued his professional studies under the celebrated John Hunter, in whose home he resided for two years. This intimate association with Hunter proved one of the most stimulating factors of Jenner's life.

John Hunter (brother of the illustrious William), a penetrating and original thinker, was at once an anatomist, pathologist, physiologist, and surgeon.<sup>3</sup> "He belonged to that family of genius, whose works, whatever may be their nature, have not merely a temporary and local interest, but an abiding and universal one." Baron,<sup>4</sup> the biographer of Jenner, tells us that under Hunter "he saw a master spirit advancing steadily in that walk of knowledge to which he himself was led . . . a kind, free, and manly nature devoted to the acquisition of science, and putting away from him entirely the selfish and personal considerations which are too apt to encumber the researches, and to circumscribe the objects of less enlightened minds."

While in Hunter's household (1771) Jenner did not exclude social pursuits. He was fond of music, sang fairly well, played the flute and was interested in learning the violin. His musical tastes recommended him to Hunter's wife, Anne Howe (the daughter of a surgeon in Burgoyne's regiment) who had written the words of Haydn's English canzonets.

During this period Sir Joseph Banks had returned with Captain Cook from his first voyage of circumnavigation. Upon Hunter's recommendation to Banks, Jenner was given the task of arranging the zoological specimens brought back from the voyage. So well did he perform this assignment that he was offered the position of naturalist for Cook's second voyage, but his desire to begin his practice in Gloucestershire caused him to decline the appointment.

Accordingly, in 1773, he repaired to Berkeley where he resided in the vicarage with his brother Stephen. He had few of the common ambitions of men, preferring "the sweet air, meadows and hills of the Vale of Berkeley, to live among country people, to ride along the lanes he knew and accept the drudgery of a country doctor's life."<sup>5</sup> His mild, unobtrusive, unambitious nature, singleness of heart and the desire which they prompted to return to the country, as well as his declination of Cook's offer, were important factors in his subsequent acquisition of fame. He rapidly established a successful country practice and became a member of the local medical societies. His professional labors did not, however, diminish his interest in music, poetry, and natural history. He also conducted a balloon ascension at Berkeley. His work as a minor poet included epigrams and figurative pieces written for private circulation. His more ambitious poems were "An Address to a Robin" and "Signs of Rain."

Most of his attention was devoted to natural history and medicine. He maintained a lively correspondence with his former teacher, John Hunter. He described the pathology of angina pectoris, the disease which cost Hunter's life, as a hardening of the arteries of the heart. In 1778 Jenner had a love affair with a wealthy young woman who declined his advances. This interrupted his studies and correspondence and for ten more years he remained a bachelor. A letter of consolation from Hunter in part said, "I can easily conceive how you must feel, for you have two passions to cope with, viz., that of being disappointed in love and that of being defeated; but both will wear out, perhaps the first soonest. I own I was glad when I heard you were married to a woman of fortune; but let her go. Never mind her." He concluded by assigning Jenner some observations he wanted made on the hibernation of the hedgehog. In 1788 Jenner, then thirty-nine, married Miss Catherine Kingscote, a member of an old Gloucestershire family.

Together Hunter and Jenner investigated the phenomenon of hibernation. They found that the temperature of the hedgehog can fall to the freezing point, the pulse to fourteen, the respirations becoming almost imperceptible, yet the blood does not coagulate—a curious phenomenon this loss of vitality unaccompanied by death. Jenner also forecast the observation subsequently confirmed by Darwin on the manner in which the earthworm breaks up the stiff clods in pieces and aerates the soil.

Jenner's most important work as a naturalist was on the migration of birds and the habits of the cuckoo. The female (in her immoral life) associates with many males, builds no home of her own, but lays her eggs in the nests of other birds. At Hunter's request, Jenner observed these

(3) Roddis, L. H. Edward Jenner and the Discovery of Smallpox Vaccination. *The Military Surgeon*, 65, 66 (Geo. Banta Pub. Co.) 1930.

(4) Baron, J. The Life of Edward Jenner. Henry Colburn, London, 1838.

(5) Drewitt, F. D. The Life of Edward Jenner. Longman Green & Co., (London) 1931.

habits. In his district he found the cuckoo laying her eggs in the hedge-sparrow's nest. He said that the young cuckoo, when hatched, contrives to get its young hedge-sparrow nest-mate upon its back, climbing in reverse up the side of the nest to the top where it throws its load off with a jerk. Jenner sent his observations to the Royal Society whose members, reluctant to believe his statements, declined to receive and print his paper.

Let us now turn to that phase of Jenner's career which has made his name forever famous—his work with smallpox and vaccination. Prior to the nineteenth century, according to Macaulay, smallpox (together with plague) was the "most terrible of all the ministers of death."<sup>6</sup> From remote times it had been known in India. Its marks have been found on Egyptian mummies entombed three thousand years ago. Slowness of methods of international transportation kept it out of Europe until the tenth century. In the seventeenth and eighteenth centuries smallpox was endemic at all times, epidemics frequently occurring. London's first great epidemic came in 1628. Charles IX of France contracted it and was left so badly scarred that his face appeared to have two noses. Louis XIV had the disease. Queen Mary II of England died of it. In 1774 Rousseau and Marat, watching from a bench before the palace of Versailles, saw the flickering candle in the royal window darken, indicating the death of Louis XV, last monarch of a civilized nation to die of smallpox. In that century sixty million persons in Europe died of it. The Spaniards introduced it into Mexico in the sixteenth century, whence it spread to the North American Indians and the New England Colonies, all of whom it devastated. Boston in 1721 suffered an epidemic which attacked half of its 11,000 population.

Inoculation, or the direct introduction into a well individual of material taken from the pustule of one suffering from smallpox (not to be confused with vaccination) had been in vogue in the Orient for centuries. A mild attack of smallpox thus acquired gave more hope of recovery than if gotten by chance from a virulent case. While inoculation prevented a subsequent attack of smallpox, it sometimes caused a mortality of two percent. It also rendered the inoculated individual contagious to others. The practice was introduced into England in 1718 by Lady Mary Montague (wife of the British ambassador at the Turkish court) where it enjoyed considerable popularity. She had performed the experiment on her son the preceding year.

Vaccination, on the other hand, is the introduction of cowpox virus into a well individual for prevention of smallpox. The belief was present in England in the eighteenth century that one who had suffered from cowpox could not take

smallpox. Benjamin Jetsy, a Dorsetshire farmer, introduced cowpox matter under the skin of his wife and two sons. The latter had a mild "take" but the former had such an inflammation of the arm that she nearly lost it. This alarming experience discouraged Jetsy from further attempts.

Early in life Jenner was acquainted with the popular belief that an attack of cowpox conferred immunity to smallpox. As a student at Sudbury he had heard a country girl say "I cannot take that disease for I have had cowpox." This remark made an enduring impression upon him. From that time on he ruminated over the relationship of the two diseases. While a student of Hunter, he talked about the question with the master. Hunter advised a trial, admonishing, "Don't think, but try; be patient, be accurate." After returning from London to Berkeley, Jenner frequently tried without success to interest his colleagues in the problem. In 1780 he spoke to a friend concerning his hopes of protecting against smallpox by cowpox virus. He said, "Gardner, I have a most important matter which I believe will benefit the human race. I should not wish what I have stated to be brought into conversation; for should anything untoward turn up in my experiments I should be made the subject of ridicule."

Jenner inoculated his son in 1789 with swinepox, later inoculating him with smallpox to see if he was protected against the disease. The results of this experiment were inconclusive. During the ensuing years he investigated the nature of cowpox, finding that all eruptive bovine diseases were not true cowpox. Only those persons who had become infected with the pustules of true cowpox were immune to smallpox. Here it was that he met the great perplexity of his work, for even some people who had unquestionably had cowpox later developed smallpox. This was the fact which discredited the belief in immunity with many of Jenner's contemporaries. He found, however, that the virus at times underwent some change whereby its specific properties were lost, and that, while it might produce pustules, it did not protect against smallpox. He ascertained that it was only during a certain stage of the pustule that the virus was capable of imparting to the constitution its protective power.

We now come to Jenner's crucial experiment. On May 14th, 1796, he took matter from a cowpox pustule on the hand of a milkmaid, Sarah Nelmes, and inserted it into the arm of James Phipps, a healthy boy of eight, by means of two superficial incisions. In July of that year he inoculated the boy with smallpox virus, but no disease followed. Vaccination thus became a fact based on careful experiment. In 1798 Jenner published his pamphlet "An Inquiry into the Causes and Effects of Variolae, Vaccinae, a Disease Discovered in the Western Counties of England." The same year he spent three months in London in the interest of vaccination. A

(6) Haggard, H. W. *Devils, Drugs and Doctors*. Harper & Brothers, (N. Y.) 1929.

(7) Clendenning, L. *Behind the Doctor*. A. A. Knopf, (N. Y.) 1933.



surgeon, Mr. Cline, vaccinated a boy in St. Thomas' Hospital with some of Jenner's lymph. The child became immune to smallpox.

Mr. Cline and Sir W. Farquhar now vainly tried to persuade Jenner to move to London, promising him ten thousand pounds a year. His reply was characteristic of his modesty: "Shall I, who, even in the morning of my days, sought the lowly, sequestered paths of life, the valley, and not the mountain; shall I, now my evening is fast approaching, hold myself up as an object of fortune and for fame? What stock should I add to my little fund of happiness? My fortune is sufficient to gratify my wishes. And as for fame, what is it? A gilded butt forever pierced with the arrows of malignancy."

Following the publication of Jenner's "Inquiry," vaccination ran the course of many new discoveries. It was berated not the least by many of Jenner's medical colleagues. Opposition due to misunderstanding and indifference has continued through the years. On the other hand, we have the statement of a leading public health authority (Dr. M. S. Rosenau) to the effect that vaccination is the best specific prophylactic agent known and that Jenner's proof that a mild infection with cowpox gave immunity to malignant smallpox stimulated Pasteur to begin his important work. It is true that vaccination fails in rare instances due to faulty virus or technique. The vaccination of an individual is not absolute but the vaccination of a community is absolute and will stamp out smallpox.

The opposition to Jenner is well illustrated by Richardson<sup>8</sup> who concluded an article called "A Fortunate Aesculapian" with the sentence, "Even inoculation of cowpox may become, together with its caressed, flattered and sported promoter, nor more nor less than a forgotten history." This gentleman had, however, the good grace to admit of the "Inquiry" that "no book so small has been talked of so much; no book of such dimensions has made the name of any author so famous." Concerning the same book Robinson<sup>9</sup> in "The Story of Medicine" says that "the Inquiry is a small pamphlet with three engravings of arms and the picture of the hand of Sarah Nemes. It is a rather delicate hand, with tapering fingers. Were it not for the pustulous sores on it, a poet might write a sonnet to this hand. At the point of Edward Jenner's ivory lancet, the medical dream of a Diseaseless Future moved a step nearer its realization."

Prior to 1798 Baron estimated that one of every sixteen persons born died of smallpox. After the publication of the "Inquiry," the salutary power of Jenner's discovery became known throughout the world. Vaccination became established by authoritative statutes in Denmark,

Sweden, Austria, the German States, and Spanish America. By 1803 Denmark and Sweden had extirpated smallpox, remaining free of it for twenty-five years. At the end of the eighteenth century Dr. Benjamin Waterhouse<sup>10</sup> of Harvard introduced vaccination to America. Thomas Jefferson set an example to his fellow citizens by becoming the first vaccinated president. From 1798 on, "smallpox has been under control."<sup>11</sup>

Jenner thus became an internationally known person and busied himself in further research and in answering criticisms.

In token of the effect vaccination has had one can not do better than quote from "The Gold Headed Cane,"<sup>12</sup> dear to every physician's heart: "By this discovery the beauty of the human race has greatly improved and the vestiges of the smallpox have been almost driven away; for to see in our churches and theatres or in any other large assemblage of people a young person bearing the marks of that disease is now of very rare occurrence."

Honors were heaped on him by many governments, as well as membership in countless honorary societies. The House of Commons favored him with a grant of ten thousand pounds. Jenner's influence with foreign nations was extraordinary. Napoleon is reported to have said, "Jenner! Ah, we can refuse nothing to that man." Englishmen abroad traveled with passports signed by Jenner. In 1806 he was elected a Fellow of the Royal College of Physicians of Edinburgh. The House of Commons, in 1807, gave him a second grant of ten thousand pounds.

He continued his life in Berkeley and was elected its only magistrate. On January 24th, 1823, Jenner walked to the village of Ham to assist in distribution of fuel to the poor. The journey in the cold weather proved too much for him. The next morning he was found on his library floor, paralyzed. He died the next day, and was laid to rest beside his wife in Berkeley Church.

On a gray, misty Sunday, such as only England provides, the writer happened into Gloucester. A service was in progress at the cathedral, conducted for his honor the mayor and official family. Late comers were then excluded from the choir, being compelled to sit well back in the nave. As the state procession, its members clad in robes of office, filed out through the great west door, only opened for such an occasion, the eye chanced to glance upon a statue of Jenner near the door. A description of the statue in Baedeker having disclosed our proximity to Berkeley it was decided to motor there enroute to Bristol. At Berkeley the most available source of information was the town

(10) Mumford, J. G. *A Narrative of Medicine in America*. Lippincott, (Phila.) 1903.

(11) Osler, W. *The Evolution of Modern Medicine*. Yale Univ. Press, (New Haven) 1928.

(12) Hellman, C. D. *An Unpublished Diary of Edward Jenner*. *Ann. of Med. History*, 3:412 (July) 1931.

(13) Macmichael, W. *The Gold-Headed Cane*. P. D. Hoeber, (N.Y.) 1915.

(8) Richardson, Sir B. W. *Disciples of Aesculapius*. E. P. Dutton, (N. Y.) 1901.

(9) Robinson, V. *The Story of Medicine*. A. & C. Boni, (N. Y.) 1931.

public house. One person there seemed to have heard of Jenner but gave directions to the wrong side of the town for his house. After several fruitless inquiries an informant gave correct directions to the vicarage, Jenner's old home, and concluded, "You know, Sir, Mr. Jenner is dead." That was the most concise information so far received, and readily conceded. Having at last located our destination, a polite knock on the door was answered by a domestic who did not know that Jenner had ever lived there. She did, however, show the cowshed in a far corner of the yard where Jenner had conducted many of his observations. Near by stands the little home of James Phipps, the boy first vaccinated. In the parish church, not far removed, Jenner and his wife are buried. An informant, employed by the Earl of Berkeley, told us that the Earl had purchased Phipps' house and offered it to the British Medical Society as a Jenner Museum.

And as for smallpox, what shall we say more? Once one of the commonest of diseases it has, like typhoid fever, become so rare that the medical student of today may conclude his training without ever having seen a case. (Although this paper was written in 1934, it is still true from a national health point of view, that smallpox is a rare disease. The Indianapolis epidemic is an exception in which we have had about 500 cases since October, 1938. This is the largest number since 1924. It merely emphasizes the need for routine vaccination at all times.) This very rarity is none the less a false security if it leads us to underrate the necessity of vaccination. Apparently it still requires an outbreak of smallpox to make vaccination popular. Vaccinated individuals are not as numerous as they should be. Smallpox is no respecter of persons and may strike a Park Avenue penthouse as easily today as it did a thatched cottage in the eighteenth century. For example,<sup>14</sup> Montreal had, in 1885, been free of smallpox for several years. An unprotected population grew up among the French-Canadians, many of whom were opposed to vaccination. On February 28th, a Pullman conductor who had traveled from Chicago was admitted into the Hotel-Dieu, the smallpox hospital being closed. Isolation was not carried out and on April first a servant in the hospital died of smallpox. The authorities dismissed all patients presenting no symptoms who could go home. The disease spread like fire in dry grass and in nine months 3,164 persons in the city died of smallpox.

In Kensington Gardens stands an heroic statue of Jenner in mature life, facing westward where the setting sun looks out upon his conquest of disease. Across the fountain, looking toward the east, the monument of Peter Pan, fairly tingling with vitality and grace, surveys the dawn of life. Thanks to Jenner, his beauty will probably never be marred by smallpox. Jenner! One of the truly great physicians of all time, whose experiments

gave him a place with the immortals and of whom it might be said "not to take authority when I can have facts, not to guess when I can know, and not to think that a man must take physic because he is sick."

## ABSTRACT

### THE NEED OF SPECIAL TRAINING IN THE DIAGNOSIS AND TREATMENT OF CANCER

The recent movement for the organization of cancer clinics is based on the principle that the best results can be obtained in the diagnosis and treatment of the cancerous diseases by formally organized and close cooperation between the pathologist, the surgeon and the radiotherapist. The personnel, the facilities and the equipment necessary for such cooperation can best be assembled and maintained only in special centers. Existing hospitals are, of course, the logical places for cancer clinics. Certain minimum standards for these clinics have been established by the American College of Surgeons including, in addition to the personnel and facilities, provisions for accurate records and follow-up services. Approved hospitals of 100 beds or more have been urged to consider the formation of cancer clinics.

The organization of cooperative services is necessary to obtain the maximum efficiency in the diagnosis and treatment of cancer. The highly expert and specialized nature of the diagnosis, the surgery and the radiation treatment inevitably requires the concentration of such services in special centers. Last year the American College of Surgeons carried on its approved list 240 cancer clinics, 144 of which are integral parts of general hospitals.<sup>1</sup> The number of approved and approvable clinics is increasing. Anticancer activities on the part of state departments of health will no doubt result in the formation of more cancer centers under similar auspices. Cancer is now accepted as a public health problem of the first magnitude. All cancer patients, those who cannot meet the cost as well as those who can, should receive the benefits of the best that can be done for them.

At the recent commemoration of the twenty-fifth anniversary of the American Society for the Control of Cancer, it was emphasized not only that the formation of cancer clinics should be furthered but that special training should be urged for physicians who wish to devote themselves wholly to cancer in their practice. Such specially trained physicians will be needed increasingly to carry on the modern diagnosis and treatment of cancer in public and private institutions. At present, eleven hospitals offering in all only thirty-four positions are approved by the American Medical Association<sup>2</sup> for "residencies in malignant diseases." Of these hospitals, services of thirty-six months are offered by one, of twenty-four months by one, of sixteen months by two and of twelve months by seven. Obviously the existing facilities for postgraduate training in the diagnosis and treatment of cancer are inadequate, but they could be greatly increased by comparatively little effort. Time should not be lost in organizing thorough and comprehensive courses in suitable medical schools and hospitals. The National Cancer Institute Act, approved Aug. 5, 1937, provides for the training and instruction of qualified physicians "in all technical matters relating to the diagnosis and treatment of cancer." Evidently the framers of the act recognized fully the great need for such training.—*Jour. A. M. A.*, Aug. 20, 1938.

<sup>1</sup>Hospitals in the United States and Canada Conducting Cancer Clinics Which Are Approved by the College, *Bull. Am. Coll. Surgeons* 22:35 (Oct.) 1937.

<sup>2</sup>Hospital Service in the United States, *J. A. M. A.* 110: 959 (March 26) 1938.

(14) Osler, W., McCrae, J. *The Principles and Practice of Medicine*. p. 313, D. Appleton Co., (N. Y.) 1930.



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APRIL, 1939

## Editorials

### CANCER—YOUR RESPONSIBILITY

The Indiana State and the United States Public Health Service statistics show a gradual increase in cancer mortality. This increase has been present each year since vital statistics were started.

In Massachusetts, where there has been a cancer program for thirteen years, a slowing down in the mortality increase since 1910 has been recorded. From 1910 to 1920 the increase was 48% and from 1920 to 1930 it was 15%; there has been only a slight increase since 1930. The most gratifying result of this cancer program is the significant reduction which occurred in 1936 in the period of delay between the first recognizable symptoms of cancer and consultation with a physician.

Cancer that is found early can be cured in the majority of cases. To find these early cases, the entire adult population and perhaps the high school population must be made cancer conscious and given the picture of precancerous and early cancerous conditions. At present, ignorance, indifference, and false modesty cause many unnecessary deaths from cancer. These can be overcome by education. There is an old saying that "Self-preservation is the first law of life." The public wants the facts and will not be frightened by them if they are presented properly. Probably the greatest good can be accomplished by the talks of physicians to small groups and to individuals. Pamphlets for physicians and the laity are available for distribution.

The county medical societies should accept this responsibility and become active in their cooperation with the Woman's Field Army. The societies should take the initiative in arranging medical

meetings for instruction of the individual physicians, for lay meetings where talks on cancer are to be made, and for placing a pamphlet of facts in every home in the county.

If diagnosed early and treated promptly and adequately, the following five-year cures may be expected:

Breast	75%	Uterus	90%
Lip	85%	Mouth	80%
Tongue	80%	Skin	95%
Rectum	50%	Bladder	50%

These figures show the advantages that an informed person will have who knows the early signs of cancer and acts promptly when the occasion arrives. Delay in reporting the condition to the doctor and further delay by the doctor in getting the proper diagnosis and starting treatment, even though the symptoms, size, signs, etc., remain stationary, greatly reduces the chance of recovery. The first treatment is all important. It should be undertaken only after definitely determining that it is the one most likely to effect a cure. Subsequent attempts never offer the same percentage of five-year cures. Early consultation is most desirable.

The early signs of cancer are: (1) The single painless lump that persists in any part of the body, especially in a woman's breast. (Adair believes that women should be taught to observe their own breasts and told what to look for.) (2) A skin or mucous membrane sore that does not heal, particularly one about the tongue, mouth, lips or cervix. (3) An unnatural, blood-stained discharge from a natural body opening, especially the rectum, vagina, bladder, or mouth. (4) Indigestion or a change in the bowel habit starting after forty or fifty years of age.

The signs of advanced cancer are pain, loss of weight, hemorrhages, cachexia, loss of function, and glandular involvement.

Recognized forms of treatment are x-ray and radium irradiation and surgery.

### THE LEGISLATURE

The General Assembly of the State of Indiana adjourned as of March sixth; the "official" adjournment was of that date but actually the final session extended well into the following day, and this was done by way of stopping the official clocks in both the House and the Senate. The adjournment probably brought no little sense of relief to the average Hoosier, not that legislation of an untoward sort was being contemplated, but because of the interminable delays in both branches of the legislature which were due to the fact that the House and Senate were controlled by opposite political parties.

Certain legislation of the "must" variety had rather precarious going, notably that arising from a statewide demand that certain changes be made in the liquor laws. Much worthy legislation was

caught in the final jam that seems always to attend the closing days of our legislative bodies.

On the whole, there is little to criticize as to the character of the laws enacted. Most of the criticism was directed against the greatest bit of stalling seen in these parts in many years.

Bills of interest to the medical profession that survived both houses and were signed by Governor Townsend include measures to provide serum for the treatment of pneumonia in those cases in which the patient is unable to provide such treatment. The first such law provided for an appropriation of \$75,000 for each of the next two years, the 1939 appropriation to become available in July. Dr. Daniel L. Bower, representative from Marion county, succeeded in having an emergency measure passed, appropriating the sum of \$20,000 to be used until the first amount is legally available.

The syphilis tests in all cases of pregnancy after January 1, 1940, and the tests for syphilis as a requirement before making application for marriage license (this law also effective after this year) are two steps that long have been wanted by physicians and health authorities. Free hospitalization in the Long and Coleman hospitals will be possible in the future under the same conditions that control admissions to the Riley Hospital. The Pure Food and Drug Act provides for the codification of all present laws on the subject, to bring them into conformity with the present federal provisions.

Numerous bills failed to make much headway in either of the legislative bodies, and among these was the chiropractic separate board bill which died in committee though strenuous efforts were made to bring it out. The bill requiring annual registration of all Indiana physicians did not get very far, for there was considerable opposition to it from over the state.

Lack of space prevents specific mention of various other measures that failed to pass, but we are concerned with some that passed both houses but were pocket-vetoed by the Governor. The reorganization bill, designed to take the State Board of Health completely out of politics, which met with more than common approval during its progress through the legislature, was unceremoniously refused by the Governor who took advantage of the pocket veto to dispose of the bill. So far as we know, he gave no reason for this except, as suggested by the *Indianapolis News*, that such a measure might interfere with some socialized medicine proposal of the Federal government. Another bill in which the medical profession was much interested was the hospital insurance measure providing for the establishment of hospital insurance plans. That bill had the active support of the Indiana State Medical Association and the Indiana Hospital Association. It was confidently believed that the bill would become a law, but it met the fate of the reorganization measure and

found its last resting place in the gubernatorial pocket. It is deeply regretted that these measures are not to be written upon our statute books, since each of them was of great merit and seemingly was desired by the lay public.

## CHARITY HOSPITAL ABUSES

More than a year ago, Mayor Walter C. Boetcher of Indianapolis appointed a special committee to investigate the charge that the privileges of the Indianapolis City Hospital, presumably a charitable institution, were being grossly abused and that a large per cent of the admissions were well able to pay for hospitalization. This committee made a thorough study of the matter and presented a formal report that should serve as a guide for future investigations. It is complete and reflects an enormous amount of study.

The resolution authorizing the investigation arose in the City Council and the committee was empowered to investigate every phase of the hospital activities. A "whereas" in the resolution is important to our profession: "Whereas, the physicians and surgeons operating in our city hospital are willing to continue their great work to those who are deserving and eligible for charity service, but naturally resent the exploitation of such generosity. . . ."

In presenting the formal report, the committee made it clear that there was no criticism of the professional management of the hospital; criticism was being leveled at certain types of admissions. This hospital has the highest rating from the American Medical Association and from the American College of Surgeons.

The total cost of operating the hospital for 1938 was estimated to be \$667,935 which means a city tax rate of about thirteen cents on each one hundred dollars of valuation—a rather sizable tax rate and one to which the average urban taxpayer would make serious objection.\* This is an increase of about \$125,000 over the operating cost for 1930.

One of the findings of the committee was that many taxpayers believe that, having paid taxes for the support of the institution, they and their families are entitled to free hospital care therein. The committee learned further that the average citizen of Indianapolis was wholly unaware of the fact that the time of the physicians on the staff was voluntarily given and that they received no remuneration for their services. Mr. Average Citizen held the notion that these physicians were paid for their attendance.

Some idea as to the scope of the work carried on at the hospital may be gained from the report of admissions for October 1937 when 828 new cases were hospitalized while 822 cases were admitted to the out-patient department; 122 applications were denied, of which 30% were relief



cases. Thirty-nine prisoners were taken to the hospital by the city and county police, 42 psychopaths were admitted, and 48 accident victims, chiefly from automotive accidents, were hospitalized. Fifty-six were termed part-pay patients while 18 paid the full amount of their hospital bills. *Many of the psychopathic cases were detained in the city hospital only until room could be made for them in the state hospital. Indiana needs more beds for such cases.* It was ascertained that in addition to this type of psychopathic admission, several other such cases were being held in the Marion County jail awaiting admission into the state hospital.

One of the most flagrant abuses of hospitalization as investigated by this committee was found to be accident cases of the "collect if you can" variety. (Most of the time, you can't!) The City Hospital ambulance service seems to have been depended upon for almost every emergency and frequently the ambulance corps was on "runs" which definitely were not connected with hospital service and at times when there was dire need for the ambulances in other cases. Another abuse was found to be the hospitalization of accident cases in which the injured persons were not residents of Indianapolis. The Indiana law provides that in such instances, those unable to pay for required services come under the jurisdiction of the township in which they live. Courts have held this to be true, even though authorization for treatment is not officially given. It would appear that in many instances a city hospital was rendering services for out-township and county cases, chiefly without proper remuneration. There is a provision, however, that the county sheriff is responsible for ambulance service bills in such cases as he may have called for such service. Just why a city ambulance should be used for county service becomes another question.

As to the admission of patients able to pay part or all of a hospital bill, an analysis of fifty random-selected cases shows that 48% should have paid at least a part of their hospital bill. In many other instances it was found that elderly people were hospitalized at city expense when resident children were well able to pay such bills. Here again does the Indiana law clearly set forth the dictum that in such instances the children must pay, or else.

The non-resident problem is a hard one to solve, but it would seem that some plan might be evolved to end these impositions. An Indiana township trustee, under the law, is responsible for such bills. In a few instances it was found that out-state patients had somehow or other gotten into the hospital, they having made the observation that they learned "it was a good hospital—," and so it is.

The recommendations of the committee chiefly involve suggestions as to investigation of all cases. They ask that the sum of \$6,000 be appropriated for this purpose and that the investiga-

tions be of the *real* variety. It also is urged that remedial legislation be obtained though that seems at present to be almost impossible. On the whole, the committee report is one worth the careful perusal of all students of medical economics, and communities of the state having charitable hospitals would do well to consult this comprehensive report.

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## PREMEDICAL EDUCATION

The subject of medical education, particularly that having to do with the premedical course, has received much space in the medical press, and only recently THE JOURNAL discussed certain phases of the question having primarily to do with our own state medical school; in that discussion, we mentioned our agreement with the methods used in selecting the members of the freshman class in our school.

An additional interest now is manifested in this matter, probably aroused by a recent discussion of the selection of medical students by President Conant of Harvard University. At a meeting of the Council on Medical Education, President Conant frankly advised that the selection of students for the medical freshman year be undertaken in the second year of the premedical term; if the selection is made at that time, a representative of the medical school will be able to counsel with and to advise the student during the remainder of his preparatory term. Such counsel and advice undoubtedly would be productive of much good and at present there can be no objection to the plan.

A late report of the secretary of the Association of American Medical Colleges indicates that 5,705 students were enrolled in the freshman classes for the year 1938-1939 and of this number some 200 were repeaters. Only 4% of this group had had less than three years of premedical training; 28% had had three years but less than four; 69% had had four years or more, and 60.3% held a baccalaureate degree. Of these freshmen, 234 are women.

In our own Indiana University Medical School, students for the first year in medicine are not selected during the second premedical year though it is true that constant supervision of these students is exercised and they are frequently advised as to their work. Certain subjects are elective during these formative years, and it is here that the student is given most thoughtful advice as to what is best suited for him. This plan is used not only with those students enrolled in Indiana University, but the supervision extends to those in other schools who plan to come to our school for their medical work.

Our medical school authorities have made the observation that "many students do well as freshman premedics and then do increasingly poorer

for one reason or another; on the contrary, many students do poorly as freshmen and do increasingly better in succeeding years, so we feel that the actual admission some time in the third pre-medical year is a vastly better procedure."

From the foregoing the conclusion is made that it is highly advisable for all medical students to provide themselves with a baccalaureate degree before entering the freshman year of their medical course. This is especially true of the younger class of students. Four post-high school years may seem a long time to a youngster, but we believe that these are formative years during which the foundation is laid for medical education—and that foundation never can be too secure! It is particularly advisable for young women who plan a medical career to take the full four year premedical course. For various reasons, it is difficult for young women graduates in medicine to obtain desirable internships. A young woman acquaintance who is particularly well trained and whose temperament would seem to assure a brilliant medical career, was able to obtain a much-desired intern appointment only after a long continued "campaign."

Supervision of medical training is here and here to stay, and it should be the aim of the profession not only to maintain our present standards but to improve them in every possible particular.

## Editorial Notes

The State of Illinois has purchased seven Drinker respirators which have been placed in various state hospitals and which are available to all Illinois physicians. Quite a ceremony was made of the delivery of the machines at the state capitol.

Babies born in 1938 have a sixty-two year lease on life. That is the total "life expectancy at birth" for the United States last year, according to the United States Public Health Service. In 1931, the figure was 60.26; in 1937 it was 60.9. Life expectancy now is almost twice as great as it was a hundred years ago. With a gain of 1.1 years in 1938 over 1937, U. S. babies may look forward to long lives if they can avoid serving as targets for alien guns.

"How old is an egg?" is a question the answer to which would be undertaken by the newly created Indiana State Egg Board. For a good many years, Indiana produce dealers have insisted that Indiana is a dumping ground for inferior eggs from other parts of the country. The law will

prevent any grocer from offering for sale *fresh* eggs, unless he obtains a state license or permit to do so. In the future, we presume that the safe way to buy eggs is to look for the word "fresh" and then look for the dealer's license.

It is estimated that three hundred lives will have been saved due to the forethought of Dr. Daniel L. Bower, member of the House of Representatives in the recent legislature, who sponsored a bill providing for emergency appropriations for the purpose of purchasing pneumonia serums for use in indigent cases. The original bill had set July first as the date on which the first appropriation for this purpose should be available.

Dr. R. A. Vonderlehr, assistant surgeon general in charge of Venereal Diseases of the U.S. Public Health Service, struck a keynote when in discussing the matter of syphilis control in a local community he said, "The best thing any town can do with syphilis is to cure it." The syphilis problem is being seriously considered in several Indiana communities, in all of which investigators have been somewhat amazed as to the extent of the infection in those sections of the state.

We are wondering if Rollen Waterson, executive secretary of the Lake County Medical Society, has not "stuck his neck out" to a very great degree. He is heading material sent from his office with the slogan, "Indiana's Foremost County Society by 1940." The enthusiasm of youth is said to be a wonderful thing, but we are of the opinion that several county medical societies in Indiana will dispute the claim of the enthusiastic Waterson. However, we of Lake County have already come to have great faith in our new secretary, so will await the coming of 1940, that we may determine how Waterson rates as a prognosticator.

In the passing of Dr. John H. Reed, longtime resident of Logansport, and probably one of the most active members in his county medical society and the Eleventh District Medical Society, organized medicine in Indiana has lost one of its staunchest and most devoted friends. We long have been acquainted with Dr. Reed's activities, particularly in connection with his district medical society which he helped to create and to build up until it has a considerable right to the use of the slogan, "The best in the state." Very rarely did Dr. Reed miss a state medical convention and only last October at the Indianapolis meeting he told us that he hoped to continue his medical society activities for at least another ten years.



The following is taken from an editorial in the *Indianapolis Star* for March 11, 1939, entitled "Health Board Reorganization":

"... The Governor says that 'this measure would place the State Board of Health under the control of physicians. The state government and the public no longer would control it.' Hoosiers properly may ask who is more qualified to supervise matters of public health than physicians. This is an era of specialization. Legal affairs are entrusted to nobody but lawyers. Experts of known experience are summoned to determine scientific and technical problems rather than groups of laymen with no more than perfunctory knowledge or training."

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The suit of Robert Wadlow, the eight foot eight inch Illinois youth, against Dr. Charles Humbert, of Barnard, Missouri, in which Wadlow had demanded \$100,000 as damages because of the publication of a scientific article concerning him, terminated in a verdict for the doctor. A jury of business men and farmers in St. Joseph, Missouri, occupied but forty-five minutes time in reaching a decision. The attorneys for young Wadlow had declared that the unsuccessful termination of the suit would in no way affect the suit which they have filed against the *Journal of the A.M.A.* for publication of Dr. Humbert's article.

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According to the annual report of the Lake County Tuberculosis Sanatorium for 1938, there are 1,938 known cases of tuberculosis in Lake County, all of which are under treatment either in the home or at the institution. Almost 1,000 of these cases are in Gary, the largest city in the county; some 300 are in Hammond and nearly 400 are in East Chicago. The remainder are scattered in the smaller cities and towns and in the rural districts. The new cases during the year show about the same distribution over the county, thus affirming the fact that tuberculosis is commonly found in the larger centers of population. The present hospital has 200 beds, and a new addition with 100 beds is soon to be opened. The average hospitalization per patient was 216 days, with an estimated per diem cost of \$1.98. During 1938, 135 patients were discharged and there were 35 deaths. Dr. P. H. Becker recently succeeded the late Dr. J. A. Parramore as superintendent of the sanatorium.

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In attendance at a recent county medical society meeting, the chairman was confronted with the question, "What is socialized medicine?" His quick reply was "Socialized medicine is a condition under which physicians attempt to make money out of the care of the indigent." The chairman of the meeting had assigned to four men in the

society the task of making ten-minute talks upon the various phases of socialized medicine—one to talk upon the Wagner Act, one about farm security, one to speak upon socialized medicine in general, and one to give the viewpoint of the young man (and for this talk he selected a young man who had only recently completed his internship in a Chicago hospital). Two-minute discussions followed each presentation. If each society in Indiana would conduct a similar meeting, members of the medical profession in Indiana would really know what socialized medicine is all about. We recommend that the plan be followed as conducted by Dr. John S. Leffel, of Connersville, for the Fayette-Franklin County Medical Society, March fourteenth.

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In the editorial notes of *THE JOURNAL* for March, 1914, Dr. Bulson wrote: "The enterprising secretary of the Lake County Medical Society says that it should not be the duty of any secretary to go around with a piece of lead pipe in one hand and a receipt book in the other in an endeavor to force members to disgorge the amount of dues for the current year. We quite agree with him. Every doctor should be proud of the fact that he is a member in good standing in his local medical society, and he ought to have sufficient pride to keep up his credit in that organization. Failure to pay medical society dues does not speak well for the doctor, and the reputation hurts among medical men as well as with the public if acquainted with the facts." This is a good reminder. And we have noted, this year, that secretaries are not always prompt in sending dues to the headquarters office. When dues that are paid in December are not sent to the headquarters office until March, the individual is unjustly deprived of malpractice defense rights for several weeks.

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Have you a hobby? Is it one that can be made a part of the hobby exhibit at the Fort Wayne convention next October? For some years the subject of a hobby show has been presented to program committees for our annual gatherings, but each time the idea was cast aside. This year it will become a reality, and Dr. Eugene L. Bulson, 406 West Berry Street, Fort Wayne, is chairman of this committee; all communications regarding the hobby exhibit should be addressed to him. Some physicians essay a bit of painting, others use their spare time in wood carving, photography of various sorts occupies the time and pocketbook of many. Your editor spends his spare time in fishing and in cultivating flowers, particularly tulips. The tulips will not be available in October, and since he never has had a "catch" mounted, his hobbies will not lend themselves to the exhibit. (Being a connoisseur of culinary accomplishments,

he may exhibit a few of his favorite, original recipes.) Look about your office and home; see if there is not a pet project that would add materially to the proposed exhibit; then get in touch with Doctor Bulson. This exhibit is bound to be an interesting addition to our annual meeting.

By the enactment of legislation covering the subject at the recent session of the General Assembly, Indiana becomes the first state in the Union legally to define drunkenness as concerns what is known in police parlance as "drunk driving." Some years ago Dr. R. N. Harger of the Indiana University Medical School invented a gadget which definitely determined the degree of intoxication of one under such examination. The evidence thereby gained soon found its way into various courts and the reactions of the presiding judges were variable; occasionally one was found to be sufficiently impressed to admit such evidence. The new law is said to make it clear that one who imbibes as much as eight ounces of "red likker" and then proceeds to drive an automobile is definitely a drunken driver and must be punished as such. The conclusion as to actual drunkenness is arrived at by a process of determining the amount of alcohol found in the blood stream: 5/100 of one per cent would seem to indicate that the individual definitely is not under the influence of alcohol; more than that amount, but less than 15/100 per cent brings about another situation and it then becomes the duty of the judge to determine whether the man can "handle his liquor." More than 15/100 means intoxication and brings with it the punishment fixed by law for such an offense. Police officials will welcome such a law because under the old law it was hard to establish a charge of drunken driving and about the best that could be done was to charge the culprit with reckless driving.

Last year saw a marked reduction in the number of deaths from automotive causes throughout the country, but there remains much to do in bringing down the casualty rate from this cause. With our various highway commissions accident-prevention minded, and our highway engineers alert to the necessity of planning highways so that they are as safe as possible, it seems that the thing most needed now is enforcement of traffic regulations. In conversation with a radio speaker who talks on this subject every week to an audience of millions, and makes from two to four public addresses throughout the country each week, he remarked that he consistently had refused to discuss automobile accidents for the reason that he felt that an intelligent effort at control had not been made. Only recently, after a national safety organization had created a special department for this purpose, naming Lieutenant Kreml of the Evanston, Illinois, police department as its execu-

tive head, did this man talk on the subject. Our observation is that communities in which the laws already in effect are enforced are communities in which accidents of this sort are fairly rare.

Some time ago a member of the Auxiliary addressed headquarters in regard to the matter of mailing addresses for *THE JOURNAL*. She suggested that all copies of the magazine be sent to the physician's home rather than to his office in order that the feminine members of the household might keep abreast of medical doings. We have received a protest from a member of the Council, who breaks forth into blank verse, the better to express his sentiments regarding the suggestion:

Don't dare to do it. If you do, the Mrs.  
Will have it down in the  
Basement, with  
The Rotarian,  
Capper's Weekly and  
True Detective.  
I like to keep them for re-reading.  
Then, anyhow, I don't want the  
Mrs. talking about  
Smallpox and Medical Economics.  
Household and  
Automobile Economics  
Are bad enough.  
Mealtime is my opportunity to  
Keep informed about hats,  
Coats and ensembles, undies, hose, etc.  
Also, it is bad enough to  
Have one member of the family  
Talking in his sleep about  
Specific medication, typing  
And sequelae and—ad lib.  
So you leave the old address alone!

The recent smallpox situation in our capital city brought to *THE JOURNAL* numerous comments regarding fees charged for required vaccinations, our information being that the fees ranged from as low as fifty cents per case to as high as five dollars for a single vaccination. Many employers of large groups had vaccinations done at the place of employment, calling in their plant or store physician, the fees in these instances averaging fifty or sixty cents. This expense was borne by the employer in some instances, in others was charged to the employee. One physician remarked that it required less than a half hour to take care of some thirty employees when a company nurse assisted in the operations. While *THE JOURNAL* seldom comments on medical fees, it would seem that the "spread" of fifty cents to five dollars is rather out of proportion, especially intimes when the lay public is beginning to wonder as to the why of all this state medicine agitation.





## President's Page



### CONTROL OF CANCER

The month of April has been proclaimed as the National Cancer Control Month in an effort to curb the ravages of this disease, which has a mortality rate estimated at 150,000 a year. Malignancy ranks high among the causes of death in the nation, being responsible for one out of ten of all deaths which occur among men and women, and frequently it takes individuals who are in the prime of life, when they are of greatest value to their families and to their community.

Cancer is found wherever man exists and affects all ages, races, sex, creeds, and all types of tissues and organs. A vast amount of progress has been made in the last twenty years through the combined efforts of the internist, surgeon, roentgenologist, neurologist, biophysicist, physiologist, and chemist, with the realization that the fight against malignant disease has just begun. It has been proven that cooperation between medical, scientific, and social groups has been a step forward.

The medical groups consist of those interested in clinical diagnosis and treatment. It is a fundamental fact that an early, accurate diagnosis, with prompt and adequate treatment, is necessary in order to obtain the best results. In order to facilitate matters in this respect, cancer institutes are being set up in various locations, many of which are supported by private funds. Their chief purpose is to provide diagnosis, treatment, and collect precise data. In these institutions, trials of new methods of diagnosis and treatment can be conducted, and their value determined, which information is available to the medical profession.

In addition, units for education are being fostered by universities and various societies for medical students, and post-graduate courses are conducted for practicing physicians.

In the scientific group, cancer research has played a most important part, chiefly in the fields of physics, chemistry, and biology. Two outstanding organizations are the American Society for the Control of Cancer, and the American Association for Cancer Research, whose work has been immeasurable and outstanding.

New and improved x-ray and radium apparatus has been a useful contribution by the physicist for therapy. A better understanding of the basic principles by which these agents act upon cancerous tissues have altered the technic of radiation, and have been highlights of hope as therapeutic measures.

Experts in the field of biology believe that cancer is a biological problem, not a single clinical entity, and a common factor in all malignant growths is abnormal cell multiplication. Their growth is stimulated by long continued irritation with agents of all types. It is thought that neoplastic cells are homogeneous with normal tissue cells, and many tumors are governed in their development by genetic, hereditary, and embryologic factors. Altered hormone secretion is considered as a possible indirect, intrinsic irritant, responsible for clinical neoplasms.

The chemistry of cell activity discloses additional information in this disease process. A distortion of cell chemistry from its normal path, which is either constitutionally determined or induced by extraneous factors, is thought to be the basis of cell proliferation in malignant growth. The determination of several important representatives of the chemical group, and their influence on normal and abnormal cells, is the foundation of malignancy.

The social group is necessary for cancer control, that is, through the education of the public. The organization of the Women's Field Army of the American Society for the Control of Cancer conducts a very successful campaign each year, and has been a most important factor in arousing the interest of various women's organizations to the fact that here is a most vital public health problem, to which they can lend their whole-hearted support, and which can be an inspiration to them because it affects the entire population, and their own particular group included.

There is an organization in practically every State in the Union, of which the State of Indiana is a participant. The program is one of education, chiefly in obtaining speakers for groups, under the auspices of county medical societies, in order to educate the people to detect early signs and symptoms, which depends directly on an enlightened public. In this particular disease, it is of primary importance that the individual be well enough informed to seek professional consultation at an early date.

Intelligent cooperation and properly disseminated knowledge to the public does much to cut the toll of this disease. The public is taught that early diagnosis and prompt and adequate treatment lead almost always to permanent cure. The educational campaign combats the fear which so frequently haunts the minds of those who already are victims of this scourge, or who live in dread of having it.

Patience is a necessary factor in order to set up a new and better status of public health, for generations are required in order to obtain adequate control, as has been demonstrated in other diseases whose mortality rates have fallen in the scale of deaths. Tuberculosis and the communicable diseases are examples of what can be accomplished through constructive education, time and patience, which are so vitally necessary for a campaign of this type.

*E. M. Van Buskirk.*

## THE WOMEN'S FIELD ARMY OF THE AMERICAN SOCIETY FOR THE CONTROL OF CANCER

MRS. ISAAC BORN

State Commander, Women's Field Army

The Indiana Division of the Women's Field Army of the American Society for Control of Cancer is



*Mrs. Born*

beginning its annual campaign. The program has the approval and support of state and local medical organizations, and physicians have given generously of their time and energy to make the work successful. Physicians have given numerous educational talks throughout the state and have constantly encouraged the Field Army workers.

As a result of this cooperative undertaking, hundreds of people in Indiana

have for the first time had the facts about cancer brought to their attention, and physicians have been able to diagnose and treat more cancers in early stages than ever before. This possibility for good has only begun. The Field Army workers are determined to continue this educational work with the profession's help until every person who can understand has had this message of hope brought to him. While only a small percentage of our population has been contacted, we are looking to them to spread the information to others.

The Cancer educational program embraces two objectives: (1) To get every adult to ask for, and every physician to give when asked, a careful physical examination in the absence of signs and symptoms; (2) To teach the public the early signs of cancer so that competent medical advice may be sought in time to prevent the serious outcome of the disease. Along with this educational work always goes the warning to keep away from quacks and cultists whose only interest is the financial return to be obtained from their nefarious schemes.

The Women's Field Army believes that it has justified its existence both by the good it has accomplished in saving people from a lingering cancer death and by the assistance rendered to the medical profession in directing patients to their physicians in many cases when there was hope for a cure.

It is in this spirit of hopeful cooperation that we start our year's campaign for enlistment in this war to save life. It is hoped that the educational program soon will be broadcast until every community in Indiana will have been reached with the message that "Cancer is curable when properly treated in the early stages."

*Let us fight cancer with knowledge!*

In opening the 1939 campaign of the Women's Field Army Against Cancer, Dr. C. C. Little, Managing Director of the American Society for the Control of Cancer which sponsors the Army, declared that women with symptoms that may mean cancer of the breast are seeking medical help earlier than they did five years ago. Dr. Little's statement was based on reports received from selected centers of treatment and from physicians who have cooperated in the educational program of the Army.

The Army was launched in 1936 under the slogan "Early Cancer is Curable. Fight It With Knowledge." In each of the two annual enlistment and educational campaigns it has conducted, the Army has enrolled more than 100,000 members. The third nationwide drive against this disease will reach a climax in April, which has been set aside by special Act of Congress as Cancer Control Month. The Army expects to be active this year in 47 states and the District of Columbia. Outstanding women in each state serve as volunteer officers for the Army.

The steadily rising number of cured cancers reported by the American College of Surgeons which reached a total of 29,195 in 1938; the growing public interest in cancer indicated by the work of the National Cancer Institute and various State Departments of Health; the splendid cooperation of state medical societies with the Women's Field Army; the fine educational work done by newspapers, magazines, and the radio—all these reflect an increasing interest in cancer control and a willingness of all to play a part in the fight against this disease, a fight that must, like charity, begin at home.

America through its Women's Field Army has taken the leadership in efforts to control cancer through education. It is not surprising that a democracy should be playing such an important role in a fight against a disease that menaces all peoples and races. Individual responsibility through education is the keynote of a democracy—it is also the keynote of all efforts to control cancer.



## FINE HEALTH PROGRAM ENACTED BY LEGISLATURE

### I. Governor Streamlines Program.

What was hailed as the "best health program ever enacted by any state legislature" was considerably reduced and streamlined until it became just another "good health program" as the result of the Governor's refusal to sign three of the health measures following the adjournment of the eighty-first General Assembly. Of these three measures which the Governor killed by a pocket veto, two, the bill reorganizing the State Board of Health and the non-profit group hospital measure, were of major importance, while the third, a measure abolishing the right of the state beauticians' board to specify examining physicians, involved the principle of free choice of physician.

Despite keen disappointment which resulted from the Governor's action, the state legislative committee points with pride to the splendid public health and medical provisions which were enacted into law during the session. A list of the most important of these measures includes such sound and progressive legislation as (1) pre-marriage and pre-natal blood tests for syphilis; (2) a model state pure food and drug act; (3) a measure making counties and not the state responsible for the payment of hospital costs in cases of indigents sent to the University hospitals and giving the local judge the right to send patients to the local as well as state hospitals; (4) two bills providing for \$95,000 to be used for purchase of pneumonia and typhoid serums and diphtheria and smallpox vaccines, to be used for indigents; (5) legislation outlawing marijuana.

### II. Legislation that Failed.

In addition to these measures which were successfully passed, the barbiturate bill was introduced in the House of Representatives as authorized by the State Association at its meeting last fall, was passed by the House Committee on Public Health, survived a hard battle on second reading but was not handed down for third reading before adjournment.

Midway through the session a measure providing for a \$2.00 annual registration of all those practicing the healing art was introduced, sponsored by the state budget committee. It probably would have been passed easily despite the opposition of the cults to the measure had the legislative committee and the officers of the State Medical Association felt free to give the measure their unqualified support. This the legislative committee could not do, due to the fact that the House of Delegates several years ago had tabled a move approving such legislation. While the matter was up for discussion many county societies took action favoring the measure but several voiced their opposition to it.

### III. Hardboiled Against Cults.

Both houses apparently were hardboiled against cult legislation, as only one cult bill was introduced during the session, and that in the House of Representatives, calling for a separate board for drugless healers. Soon after the introduction of this measure, which reached a new low as far as standards were concerned, several of its authors asked that their names be withdrawn from the measure. Apparently this took the pep out of the remaining proponents of the bill and it got nowhere fast. Throughout the session the Christian Scientists, osteopaths and optometrists were most active, not in forcing any legislation of their own, but being most vigilant in seeing that nothing was written into any bill which would be detrimental to them. They were at all times open, frank, and straightforward in presenting their viewpoints and your committee did not hesitate to come to an agreement with their groups in regard to amendments to certain bills on several occasions.

### IV. No Socialized Medicine.

Attempts to socialize medicine were outstanding for their complete absence. On numerous occasions the term "socialized medicine" was heard in the corridors of the legislative halls and several times it appeared in the press and the Governor was quoted in the papers as giving for one of his reasons for not signing the State Board of Health reorganization measure that he felt the physicians on the board would oppose socialized medicine. It is plain, however, that no disposition exists on the part of the legislators to make socialized medicine an issue at the present time.

### V. Appropriation for State Board of Medical Registration and Examination Cut.

It is unfortunate that the budget which was passed made a ten per cent cut in the State Board of Medical Registration and Examination appropriation. Even under its old allowance the State Board had difficulty in carrying on its routine functions. Under the new cut in expenses the Board will be forced to economize to such an extent that board meetings may be held less frequently and the activities of the board will be curtailed because of lack of funds to employ necessary personnel.

### VI. Conclusion.

In closing your committee wishes to express its appreciation for the splendid services rendered by the physicians, dentists, and pharmacists who were members of the legislature, Dr. Daniel L. Bower of Indianapolis, Dr. R. H. Richards of Patricksburg; Dr. Theodore Cable of Indianapolis and Dr. Walter F. Danielson of Michigan City, dentists;

Mr. Frank T. Millis of Campbellsburg, pharmacist, who served as chairman of the House Committee on State Medicine and Public Health, and Mr. Davies Batterton of Greensburg, pharmacist, and Walter Beardsley of Elkhart, drug manufacturer, who served in the Senate. Your committee also wishes to express its appreciation for the splendid help and cooperation it received from the various local legislative committees throughout the session.

COMMITTEE ON PUBLIC POLICY AND  
LEGISLATION

Norman M. Beatty  
J. William Wright  
*Co-chairmen*

O. T. Scamahorn  
George Daniels  
George Dillinger  
W. W. Washburn  
C. M. Jones  
O. T. Brazelton  
C. B. Parker

**BILLS AFFECTING THE MEDICAL PROFESSION  
WHICH WERE SIGNED BY THE GOVERNOR  
AND BECAME LAWS**

**H.B. 37** (Bower-Richards)—Authorizes State Board of Health to purchase pneumonia serum, diphtheria and smallpox vaccine and typhoid serum to be distributed for needy persons. Appropriates \$75,000 for each of the next two fiscal years.

**H.B. 585** (Bower and others) — Appropriates \$20,000 immediately for the purchase of pneumonia serum, smallpox virus, typhoid bacterins and diphtheria toxoid to be distributed free to the poor. Emergency.

**H.B. 21** (Bower-Richards)—Requires that syphilis tests be made in all cases of pregnancy and provides for records concerning stillbirths after Jan. 1, 1940.

**H.B. 74** (Evans and others)—Provides free medical and surgical care and hospitalization at the Robert W. Long and William H. Coleman hospitals in Indianapolis for indigent persons who have been residents of the state for one year, expense to be borne by counties; provides for free treatment of crippled children between the ages of 16 and 21 years at the Long Hospital; admission to be on commitment by the Circuit Court judge, who has right to specify hospital in own locality if he sees fit.

**H.B. 78** (Black and others)—Amends narcotics act to outlaw all parts of marijuana as used in cigarettes or any other article, except mature stalks and sterilized seed.

**H.B. 330** (Black)—Permits township trustee to destroy marijuana weed by employment of WPA labor, CCC enrollees.

**S.B. 98** (Jenner)—Requires issuance of registered pharmacist license any time prior to Jan. 1, 1940, to an apprentice pharmacist whose apprenticeship began prior to Jan. 1, 1925.

**S.B. 129** (Beardsley)—Permits common carrier vehicle to leave the scene of a fatal accident before arrival of the coroner if a member of the crew is left with the body. Public Safety.

**S.B. 173** (Beardsley-Hendricks)—Pure Food and Drug Act. Codifies the Indiana food, drug and cosmetics law and makes it uniform with the new Federal Act. Reported for passage by Senate Committee on Public Health. Companion to H.B. 291.

**H.B. 134** (Stein)—Marriage law—Amends marriage law to provide that physical examinations, including tests for syphilis, shall be taken not more than 30 days before applying for a marriage license. License would be void if not used within 60 days from issuance date. Circuit Court judge given power to dispense with requirements in emergencies. Blood for tests would be sent by mail to laboratories and result reports returned by mail. Persons opposed to medical tests for religious reasons exempted. Violation a misdemeanor with \$100 maximum fine and six months' maximum imprisonment. Becomes effective March 1, 1940.

**H.B. 260** (Bower, Slenker)—Recodifies and simplifies laws relating to embalmers and funeral directors. Changes director's license to a professional instead of a business license. Provides for more adequate inspection and educational facilities. State Medicine and Public Health, Emergency.

**S.B. 100** (Brandon and others)—Extends the milk control act until June 30, 1941. Emergency.

**H.B. 139** (Murray)—Amends county hospital law to permit establishment and control of hospitals by county commissioners in conjunction with county infirmaries in counties of less than 23,000 population.

**H.B. 49** (Stein)—Prohibits after Aug. 1, 1939, the retail sale and use of fireworks except under permit by state fire marshal. Bonds exhibitors of public fireworks display. Violation a misdemeanor with maximum fine \$100, sentence 90 days, or both.

**H.B. 426** (Guernsey et al.)—Exempts from inheritance tax gifts by will to corporations formed for charitable, religious or educational purposes, which gifts are not used exclusively in Indiana, but "more than a nominal part" will be used in this state. Emergency.

**H.B. 249** (Stein-Creighton)—Enables the State welfare department to divide the state into North and South districts for admission of patients to institutions for the feeble-minded; persons residing in the North district to be committed to the Fort Wayne school, those in the South district to be sent to Muscatatuck Colony. Also removes the age limit for admission. Emergency.

**H.B. 190** (West-Baker)—Makes it unlawful for persons with means to obtain poor relief. Violation a misdemeanor with maximum fine of \$100 or six months' imprisonment, or both.



**S.B. 46 (Van Ness)**—Allows boards of county hospital trustees to manage or dispose of gifts to hospitals without any control by county commissioners or councils as long as gift terms are met. Emergency. Bill takes care of local situation.

#### BILLS FAILING TO PASS

**H.B. 7 (Hoover)**—Provides for physical examination of persons within 10 days before applying for marriage license, making it illegal for issuance of a license to anyone with a venereal disease. License not used after 30 days of issuance is voided. Violation is a misdemeanor with penalty ranging from \$100 to \$500 and imprisonment from 30 to 90 days. This is not the marriage bill prepared by the Governor's Commission. There was no action on this bill.

**H.B. 34 (Gavit)**—Reduces gross income tax on retailers from 1 per cent to one-fourth of 1 per cent and leaves exemptions unchanged. Proposed to impose a tax of one per cent on the gross income from professional services. There was no action on this bill.

**H.B. 56 (Miller-Klein)**—Provides for the state to pay one-third of the cost of county tuberculosis hospitals. Appropriates \$1,000,000 for two years' state aid. There was no action on this bill.

**H.B. 59 (Klein)**—Amending present workmen's compensation schedule to provide payments for 200 weeks in cases of amputation at or above knee joint and striking out clause for deduction of any amount paid for temporary total disability from any amounts due subsequently for permanent disfigurement. This bill was withdrawn.

**H.B. 109 (Klen)**—Creates state board of water and sewage plant operators and engineers which would examine applicants and issue licenses to employees of such plants. Makes it unlawful to hire non-licensed employees. Fine of \$10 for each day of violation. Expenses of board derived from license fees. This bill reached second reading in the House.

**H.B. 114 (Bower et al.)**—Provides that registered physician shall report all cases of occupational diseases to the State Board of Health for the purpose of compiling statistical data upon which information and instructions may be given employers to prevent the diseases. Physicians failing to make reports or making false reports shall be guilty of a misdemeanor and fined from \$10 to \$50. This bill was sponsored by Doctor Harvey and the State Board of Health and provided that reports should be made of those having occupational diseases. These records would not be made public but would assist the State Board of Health in its industrial hygiene program. It would not be precedent setting. This bill was approved by the Committee. This bill reached second reading in the House.

**H.B. 185 (Wingate-Brady)**—Amends election law to provide that persons voting absentee ballots by reason of illness must furnish physician's certificate. There was no action on this bill.

**H.B. 195 (Denton-Durham)**—Amends civil proceedings act to remove the \$10,000 limit for damages in accidental death. An act relating to civil proceedings and medical, surgical, funeral and attorney costs preceding death caused by another party. This bill reached second reading in the House.

**H.B. 199 (Klen-Wolf)**—Authorizes trustees of Indiana University to establish a school of podiatry. Tuition \$125 a semester. Appropriates \$15,000 to establish school and \$10,000 a year to maintain it. This bill was indefinitely postponed in the House.

**H.B. 213 (Durham et al.)**—Amends poor relief law to provide that emergency medical attention given to the needy, for which the township trustee refused to pay, may be collected by filing application with county commissioners to direct payment by trustee. This bill reached second reading in the House.

**H.B. 224 (Durbin et al.)**—Permits hospitals to file liens for care against patients who recover damages for injury. Liens shall be inferior to claims for attorney fees and costs incurred in recovering damages. Exempts persons covered by Federal or state workmen's compensation or Federal liability act. This bill was indefinitely postponed in the House.

**H.B. 225 (Denton et al.)**—Amends workmen's compensation act by increasing from 90 to 180 days the time after an injury to an employee that an employer must provide medical care. There was no action on this bill.

**H.B. 226 (Durham et al.)**—Amends county hospital act to provide for unlimited time for 2-mill tax levy instead of a 20-year limit. This bill reached second reading in the House.

**H.B. 276 (Vernor et al.)**—Creates board of examiners for drugless practitioners, including graduates of chiropractic, naturopathy, and similar schools of drugless healing. Board of three appointed by Governor. Sets fees for licenses. Board members to receive \$10 per diem and expenses. This is the worst cult bill as far as lowering medical standards is concerned ever introduced in the legislature of Indiana. This bill was referred to Judiciary A Committee and died there when the session ended.

**H.B. 307 (Baylor, Crook)**—Licenses tourist camps and homes, sets up health regulations and places them under supervision of the State Board of Health. Fee would be \$10 for less than five rooms and \$10 for more than five rooms. Operation without license a misdemeanor punishable by \$300 maximum fine, 90 days maximum sentence or both. Patrons failing to pay bill subject to \$25 maximum fine and 30 days maximum imprisonment or both. Operator could take lien on patron's automobile or property. There was no action on this bill.

**H.B. 318 (McCoy-Coons)**—Provides that duplicate birth certificates shall be filed with the county

recorders. This bill reached second reading in the House.

**H.B. 342 (Richards)**—Regulates sale and advertising of appliances for prevention of venereal disease. Sets license fees for manufacturers and wholesalers at \$50 a year and retailers \$2 a year. Penalty for violation, maximum fine \$100 and maximum imprisonment 90 days or both. To be administered by State Board of Pharmacy. This bill was withdrawn.

**H.B. 416 (Hunter)**—Makes it a misdemeanor to refuse attendance at schools, parochial, private or public, of children who have not been vaccinated. Fine \$10 to \$100. A League of Medical Freedom measure. This bill was withdrawn.

**H.B. 418 (Markland)**—Amends civil proceedings law to provide that the cause of action against physicians, surgeons, dentists, hospitals, sanitariums for malpractice, error, mistake or failure to cure shall date from the day of the act complained of and not after the statute of limitations period. The committee approved this bill. This bill passed the House but died in the Senate on second reading.

**H.B. 471 (Creighton-Stein)**—Licenses all persons engaged in the practice of healing, effective July 1, 1939. Fees \$2 a year. Licenses granted by state board of medical registration and examination. Licenses suspended automatically if not renewed 90 days after July 1 of each year. Violations punished under provisions of medical practice act. This bill was favorably reported out of committee with amendments with no further action.

**H.B. 477 (Bower-Richards)**—Prohibits the sale of barbital, cinchophen, sulfanilamide, aminopyrine and dinitrophenol except on prescription. This bill reached second reading in the House.

**H.B. 487 (Richards-Bower)**—Provides that township trustees shall send indigent sick to county supported hospitals, if available. Charges, including physician's fee, if reasonable, shall be paid by the township trustee. There was no action on this bill.

**H.B. 494 (Gibbons)**—Requires physicians, surgeons, dentists and nurses to submit to tests for syphilis each two years beginning July 1, 1939. Licenses would be suspended during period disease is communicable. Persons practicing while license is suspended would be subject to a fine of \$25 to \$100 and license revocation. There was no action on this bill.

**S.B. 12 (Bedwell)**—Amends workmen's compensation law in several respects, including (1) increases from 60 days to the duration of a temporary injury the period during which workmen are entitled to medical and hospital services at expense of employer; (2) increases from \$30 to \$45 a week the maximum wage upon which compensation benefits may be computed. This bill failed to pass in the Senate.

**S.B. 93 (Johnson)**—Requires a physician's certificate of health be presented by public school

teachers and employees before they can be hired. There was no action on this bill.

**S.B. 136 (Weiss and others)**—Adds cannabis and all derivatives to the list of drugs controlled by the narcotic drug act. This bill passed the Senate and reached second reading in the House.

**S.B. 169 (Post)**—Amends fire marshal law to give that office jurisdiction over construction, maintenance and remodeling of all buildings, including hospitals, the storage, manufacture, and distribution of all fuels and installation of fire escapes in all public and private buildings over two stories; providing up to \$500 fine and/or 90-day jail sentence for non-compliance. This bill passed the Senate and reached second reading in the House.

**S.B. 171 (Sexton and others)**—Provides for licensing of plumbers by the State Board of Health; master plumbers fee to be \$25 annually with examination fee of \$15; renewal fee, \$25; gives county authorities supervision over plumbing and sanitation outside city corporation limits. This bill passed the Senate but the motion to suspend rules failed in the House.

**S.B. 192 (Conroy and others)**—Requires that crippled children must be under 21 years of age and residents of Indiana one year to be eligible for public care and treatment. This bill passed the Senate and reached second reading in the House.

**S.B. 202 (Johnson and others)**—Amends 1935 law providing for marking fresh fruits and vegetables to give state board of health authority to adopt regulations. Appropriates health board \$9,000 annually to enforce. This bill passed the Senate and reached second reading in the House.

**S.B. 209 (Randall-Dill)**—Requires health certificates for all restaurant employees. Effective Oct. 1, 1939. There was no action on this bill.

**S.B. 217 (Lane-Webb)**—Permits counties to enter into agreements with another county to provide care or hospitalization in an infirmary or hospital of indigent wards on a proportional cost basis. This bill passed the Senate and was reported favorably out of committee in the House with no further action.

**S.B. 250 (Vermillion-Garrott)**—Provides for annual registration with \$2 fee, for all persons licensed by the state board of medical registration and examination. There was no action on this bill.

#### BILLS VETOED BY THE GOVERNOR

**H.B. 97 (Brady et al.)**—Gives State Barber Board jurisdiction in trade disputes; power to approve minimum price agreements and agreements for closing hours; fix territorial units for voting on such agreements; regulates barber schools; defines additional powers and duties of the board. Makes violation misdemeanor with fines from \$25 to \$200 and maximum imprisonment six months. Each day of violation a separate offense. State Medicine and Public Health.

*(Concluded on page 216)*



## STATE-WIDE OBSERVANCE OF CHILD HEALTH DAY MAY DAY—MAY 1, 1939

*"The Health of the Child is the Power of the Nation"*

Child Health Day activities are to be sponsored by the Bureau of Maternal and Child-Health of the Indiana State Board of Health, in cooperation with the respective county medical societies of the Indiana State Medical Association. The program in 1939 will be planned to carry out that part of the accepted program of the Indiana State Medical Association known as "The Indiana Plan." The celebration of Child Health Day calls for placing into action that part of the Indiana Plan for the extension of public health services which pertain to the improvement of the health of the children of Indiana.

The *objective* of the 1939 Child Health Day programs is to bring to the attention of each community:

The importance to the child's health, development, and well-being throughout life, of proper food, rest, exercise, medical care, and protection against disease.

The ways of informing parents and others how child health may be safeguarded, and

The means whereby such safeguards may be made available for all children.

**Leadership:** The responsibility for the program will be placed with the County Medical Society. Through the President, Secretary, or Child Health Committee of the respective county societies, a permanent chairman will be chosen. The permanent chairman may be a member of the society, a member of the ladies' auxiliary of the society, or some leader of a lay group particularly interested in the promotion of child health work. It

is urged that the societies will not select their county public health nurse to act as permanent chairman of the May Day program, since in most cases the nurse's program is heavily burdened, and the child health part of the program is built about year-round activities.

It is urged that the society select chairmen at an early date and ask the chairmen to communicate with the State Board of Health where suggestions for carrying out the program may be obtained. In addition, the State Board of Health will supply literature, posters, newspaper releases, and other material to be used in carrying out the county program.

The County Medical Society, in planning the 1939 May Day program, should arrange for the presentation to the public of the child health needs of the community, and launch a child health program that will best contribute toward strengthening a year-round child health program.

Child Health Day offers an excellent opportunity for the County Medical Society to make the Indiana Plan something more than a health program on paper. It is an opportunity to direct the often misguided energies of certain well-meaning groups into the proper directions for utmost gains in health conditions of the children in its own community.

Let every society work out a constructive, worthwhile, medically guided program to benefit the health of the children of its own community.

For further assistance in arranging the program, please write the State May Day Chairman, Indiana State Board of Health, Indianapolis.

## *The Fort Wayne Convention*

OCTOBER 10, 11, AND 12, 1939

### WOMEN PHYSICIANS

In accordance with the precedent established at the State Convention, which will be held October 10, 11, and 12th, in Fort Wayne, a banquet is being planned for the Women Physicians of the Indiana State Medical Association. This will be held on Tuesday evening, October 10th, and is the only event in which the women physicians participate as a separate group, and it is hoped that many will be present. The banquet will be an informal affair and probably will be held in the Hoosier Room of the Indiana Hotel.

All the details of the program are not completed as yet, but there will be several competent and interesting speakers, and we assure everyone it

will be of the best, in keeping with the remainder of the convention. This particular gathering will give everyone an opportunity to renew old acquaintances and make new friends, and some of these we have not seen for many years.

A few weeks before the convention, cards will be mailed to all women physicians and it is requested that these be checked and returned, so that reservations may be made, and that we can make our final plans. This particular event will be one of the finest, and we want everyone to attend and help make it such.

RUTH M. HOETZER, M.D., *Chairman,*  
Committee for Women Physicians.

## MORE COUNTIES REPORT ON THE A.M.A. SURVEY

Last month THE JOURNAL published brief summaries of the reports of the A.M.A. survey on medical care from Allen, Marion, Jackson, Putnam and Randolph counties. The Vanderburgh county report was published in the October, 1938, issue of THE JOURNAL.

### SURVEY IN ST. JOSEPH COUNTY

St. Joseph County has a population of 160,000, with more than 100,000 in South Bend.

Of the 236 forms sent to physicians and dentists, 152 were returned. Other blanks were returned from 4 of 5 hospitals, 3 nurses' organizations, 3 health departments, 63 of 177 welfare and relief agencies, 2 of 5 schools, 2 colleges, 6 of 9 other organizations, and 28 of 59 pharmacists.

There are 139 physicians and 97 dentists in active practice in St. Joseph county. Fifty-nine pharmacists, 6 hospitals, 72 full time and 72 part time private duty nurses, and 6 full time public health and visiting nurses serve the county. The hospitals include 3 general hospitals, 1 children's hospital, 1 tuberculosis hospital and 1 county infirmary. None are private hospitals. There are 524 available hospital beds, 214 in private rooms, 106 in semi-private rooms, and 195 in wards. During 1937, 70% of all beds were occupied. Ward rooms are \$2.25 to \$3.50 per day; semiprivate rooms are \$3 to \$4, and private rooms are \$4 to \$8.

The greatest distance that the nearest physician would have to travel to reach persons in the area is 7 miles.

The committee for the society, in summarizing the report after the survey had been completed, made the following observations.

1. Many persons in the low income group are not receiving adequate medical care, for two reasons: (a) lack of funds (services not available at prices this group can afford to pay), and (b) the public is not aware of the facilities that are in existence for the care of this group.

2. Many school children from indigent and low income families are not receiving adequate care of teeth, eyes, and possibly tonsils. Glasses are not adequately supplied. Reason: lack of funds and patient-overload in certain dispensaries.

3. Facilities for care of the teeth among adults of the indigent and low income groups are inadequate. Procurement of artificial dentures is an important need. There was found no organized effort to remedy these matters, though private dentists do a commendable amount of work for these groups when so requested.

An apathetic cooperation in regard to the survey was noted on the part of physicians, dentists, and groups of lay persons such as government officials, ministers, and parish priests. As would be expected, trained social workers have responded freely.

Many persons, in and out of the profession, expressed the opinion that existing conditions pertaining to medical problems are satisfactory.

As regards the problem of medical care in this community, there are three groups of people: (a) the well-to-do, (2) the indigent, and (3) the low income group. The first group offers no problem. The indigent, the survey indicates, should have free choice of physicians, dentists, hospitals, and pharmacists. This principle of free choice is one of the fundamentals of Americanism and has been continuously stressed by the American Medical Association. In St. Joseph county there are two methods by which the township trustees supply medical care to the indigent: (1) the trustee employs, at stated salaries, one or more physicians to care for the indigent of the township, (2) a system employed by some township trustees in which all or most of the physicians of the township join in an agreement with the trustee to render regular medical care to indigents for a fee which is usually from one-third to one-half of the normal fee. This second plan, as revealed by the survey, functions satisfactorily and, according to the committee, is the better one.

For the low-income group, the committee believes that it is the consensus of those contacted that help for this group is the most important problem of the medical profession. The committee recommends favorable consideration of some plan of hospital insurance as soon as the state legislature makes such a plan legally possible.\* The committee also recommends the favorable consideration by the society of a post-payment plan of adjusting medical fees for this low-income group. Obviously, the group will be always with us, and our problem is the establishment of a definite system or plan whereby this group may obtain adequate medical care at a price it can afford to pay. The plan recommended by the Committee is one that will permit any citizen of this community in the low-income group, when confronted with medical expense beyond his ability to pay, to have his bill adjusted by a third party to the satisfaction of all concerned. The need for this facility probably is more apparent than real. The committee recommends that the society propose an arrangement with the manager of the South Bend Retail Credit Bureau for such service. If such a plan were put into effect, every citizen could truthfully be told that there is available for him standard and adequate medical care at a price that he can afford to pay.

There are 15 private agencies and 6 governmental agencies which arrange for or provide medical services in the community. The committee

\* This bill passed both the Senate and House of Representatives but was pocket-vetoed by Governor Townsend.



feels that the present facilities are not sufficiently well known to the public.

During 1937, 12,245 persons were reported as having been given free services in the office, home or hospital by physicians, and dentists served similarly 3,895.

No patients were reported during 1937 as needing hospital care and who were not admitted as bed patients; no patients needing medical services were turned away from the outpatient departments. No persons were reported as having endeavored to secure medical services unsuccessfully. Nursing services could not always be filled for three reasons: (1) patient lived outside of city limits; (2) request for twenty hour duty which is not practiced in the community; (3) patients refused to have a physician.

The number of persons reported to the health department in need of medical care which they were not receiving was "many, but number not known." Low income usually was the reason given for not receiving such care. Indifference and the use of other healing agencies (such as Christian Science) were given as the reason for failure to secure the required medical service in many instances.

Welfare and relief agencies reported 525 persons as needing medical care which could not be supplied or obtained because the hospital and dental load was too heavy in the children's dispensary. Three instances were reported by physicians or dentists where medical services could not be obtained.

Factory group insurance and lodge sick benefits are available from several organizations in this community.

#### VIGO COUNTY SURVEY

Vigo county is a farming, mining, and industrial county with a population of 98,861 in an area of 409 square miles. The largest city, Terre Haute, has a population of 62,821.

Forms were sent to 113 physicians with 41 replies, 53 dentists who sent 13 replies, and other forms were returned from 4 hospitals, 2 nurses, 2 health departments, 24 of 31 welfare and relief agencies, 62 of 64 schools, 5 colleges, 21 of 28 other organizations, and 46 of 50 pharmacists.

Seven miles is the greatest distance that the nearest physician would have to travel to reach persons in the area.

In addition to the physicians and dentists, 668 full time and 60 part time private duty nurses, 6 full time and 3 part time public health and visiting nurses and 50 pharmacists serve the community. The 3 general hospitals (2 supported partially by the county, 1 privately operated colored hospital, and 1 endowed clinic) showed that there were 4,925 free patients during 1937 compared with 5,462 pay and part pay patients. Approximately 50% of the patients admitted to the institutions did not themselves pay for services. Hospital facilities include 357 beds with 40 in private

rooms, 147 in semiprivate rooms, and 70 in wards. Rates are from \$2.50 per day in wards to \$2.50 to \$3.50 in semiprivate rooms, and \$3.00 to \$7.50 per day in private rooms.

Two outpatient departments are operated by hospitals, 2 clinics are operated by health departments, 13 clinics are operated by welfare and relief agencies, and 18 clinics are operated by other organizations. These clinics supply services for general medicine and surgery (8), maternity and child welfare (4), eye, ear, nose and throat (1), health examinations (7), venereal diseases (2), tuberculosis (2), dental (1), and first aid (12).

Seventeen private agencies and 3 governmental agencies arrange or provide for medical services.

Eleven industrial plants arrange for medical services for employees; 6 organizations arrange for care for special groups of persons, and 2 other organizations arrange for or provide medical services for the general public.

During the first six months of 1938, 3,626 persons were reported as having been given free services in the office, home, or hospital by physicians, and dentists served 262 persons.

#### NEED FOR MEDICAL CARE

During 1937, 175 patients needed hospital care but were not admitted as bed patients. The reason given was that all were from a local, private, colored hospital and "would-be" patients unable to pay for services were refused by the proprietor who could not afford to enter them as free patients.

No patients were refused care in outpatient departments if the departments rendered the type of service required.

Welfare and relief agencies reported 109 persons as needing medical care which could not be supplied because, in some cases, the individuals were ineligible, 15 of the number were sent to another agency and it was unknown whether they were cared for; 58 were too far advanced. Another reason given was that some agencies did not know how or where to go to secure medical care for indigents.

Preventive medical service is obtainable from 17 physicians in private practice, 4 health departments, and 3 other agencies. No births were thought to be unattended by a physician or midwife. Thirty-eight and two-tenths per cent of of the obstetric patients waited until after the third month of pregnancy to consult their physician.

A total of 6 persons were reported, during 1937, as being unable to obtain either medical, dental, nursing, or hospital care in Vigo county. Not a single organization reported asking a physician to donate services and being refused.

#### NOBLE COUNTY SURVEY

Noble county occupies 417 square miles and has a population of approximately 22,400. There are twelve towns and villages in the county, the largest having a population of about 5,000. The com-

munity is chiefly a farming community; the larger towns have several small factories.

Medical services are supplied by 26 physicians, 11 dentists, 1 county nurse, 2 hospitals and 1 convalescent sanitarium. The county maintains affiliation with a state tuberculosis sanitarium in another county. The Fort Wayne nurses' registry will supply nurses when needed, and Fort Wayne is near enough to supply specialists for consultation whenever such services are indicated. Special hospitals also are available in Fort Wayne.

The greatest distance that a person would have to travel to reach a physician is eight miles.

All physicians of the county do some preventive medical work, and these services are available in some way for all who apply. This phase of work is neglected to a certain extent, not because of any unwillingness to render the services but because the need for the services is not given enough publicity. The county nurse with the cooperation of the county medical society is the chief agent in the program for preventive medicine.

Noble county is supplied with good dentists but some persons have difficulty in securing the proper dental care because the relief agencies do not consider that work as essential as the preservation of the remainder of the body; the people themselves do not consider their teeth as important, and even many who are able to pay for the care of their teeth neglect them.

The physicians of the county are distributed in such a manner that at least one is within reach of every person in the county. There is sufficient hospital room to care for the needs of the county.

The county nurse reports that she does not know of any case where medical services are needed and can not be obtained.

Every eligible doctor in the county is a member of the Noble County Medical Society and this organization has an arrangement with the trustees whereby each doctor takes care of his own indigent patients and his bill is paid at the end of each month by the township trustee after one-third of the amount is discounted.

The committee appointed to conduct the survey in Noble county summarizes with "We feel that there are sufficient medical services available to all of the inhabitants of Noble County and a means by which they can be obtained. There are some who do not get all of the care they need, but it is because they are not willing to try to get it."

#### MADISON COUNTY SURVEY

Madison county, with a population of 82,185, is near the center of the state. The principal city in the area is Anderson, with a population of 39,804.

Survey blanks were sent to 70 physicians, 18 of whom completed and returned them. Blanks also were sent to 6 pharmacists all of whom sent replies.

Seven miles is the greatest distance that a person would have to travel to reach the nearest physician in this area.

Two general hospitals and 1 tuberculosis hospital serve the area. With a total of 193 beds, 78 are in private rooms, 90 are in semiprivate rooms, 25 are in wards, and there are 18 maternity beds.

Physicians reported that during 1937 free services were given in the office, home or hospital to 2,073 persons. Pharmacists compounded 1,850 prescriptions for which no charge was made; 325 prescriptions were supplied at cost or reduced fees. Township clinics supply medicines for the indigents.

Each of the six pharmacists who sent replies noted an increase in the number of prescriptions supplied in relation to the number of sales of home remedies or patent remedies during 1937.

There were no persons reported as being unable to obtain either medical, dental, nursing or hospital care.

#### LEGISLATIVE PROCEEDINGS

(Continued from page 212)

**H.B. 241** (Denton et al.)—Hospital insurance measure. Provides for establishment of non-profit hospital service plans. Rates set for subscribers subject to approval of state insurance commissioners. A majority of directors of a corporation offering such plans shall be administrative officials or trustees and members of the staff of the hospital which has the contract for the service. These corporations would be classed as "charitable and benevolent" and exempt from taxation. State Medicine and Public Health. Sponsored by Indiana Hospital Association and approved by Indiana State Medical Association.

**H.B. 249** (Stein, Creighton)—Provides that all feeble-minded persons shall be admitted either to the Ft. Wayne State School or the Muscatatuck Colony, according to districts to be designated by state welfare board. Penal and benevolent institutions.

**H.B. 476** (Bower et al.)—Reorganizes the State Board of Health to consist of 10 appointive members including a civil engineer, dentist, pharmacist, six physicians, all of whom shall be licensed, and a layman. Present board would function until June 26, 1939. Emergency. State medicine and public health.

**H.B. 581** (Hiestand)—Amends the beauty culture law to allow beauty operators to select their own physicians for required physical examinations instead of being required to go only to physicians designated by the state. State medicine and public health.

ANNUAL POSTGRADUATE  
COURSE  
INDIANA UNIVERSITY SCHOOL  
OF MEDICINE  
See page xxix



## LAKE COUNTY'S "PRODUCTION SCHEDULE"

### MEET "HENRY" WATERSON

Lake county has a new executive secretary: Mr. Rollen (Henry) Waterson. After studying journalism and English at Notre Dame (no football, he says), he was engaged in advertising, publicity and management in the theatrical field, then in public relations and advertising work in the retail business which led to his position as department store manager where he was when members of the Lake County Medical Society approached him with an offer of a job as executive secretary of the Lake County Medical Society.



"Henry" Waterson

Mr. Waterson believes his present work "is the biggest job, from the standpoint of latent possibilities" that he has ever had. Experienced in public relations, press relations, credits, collections, and business management, "Henry" says he already has found that he should be an expert economist, an authority on sociology, a good accountant, an attorney, a master politician, an experienced actuary, and an accomplished public speaker. With the auspicious start that he has made, there seems to be every reason to predict success for Mr. Waterson, and to substantiate this opinion we publish in full the outline of committees and their work as arranged by the Lake County Medical Society officials and Mr. Waterson as a "production schedule" for 1939.

### 1939 PRODUCTION SCHEDULE OF THE

#### LAKE COUNTY MEDICAL SOCIETY

"... Indiana's Foremost County Society by 1940"

#### COMMITTEE ON MEDICAL ECONOMICS—H.

*M. Baitinger and T. W. Oberlin, co-chairmen.*

1. Consider organization of Physicians' Business Bureau for
  - (a) exchange of credit information
  - (b) collection of physicians' accounts
  - (c) handling of deferred payment plan
2. Consider organization of Physicians' Telephone Exchanges.
3. Study questions of medical relief and make recommendations to Society.
4. Study Hospital Insurance.
5. Consider socialized medicine and cooperate with committee on Public Education in its effort to enlighten the public on the issue.
6. Disseminate information among the members of the Society on any phase of Medical Economics.
7. Sponsor Economic Round Tables at which the business side of medical practice will be discussed.

#### COMMITTEE ON PUBLIC EDUCATION—C. M. Jones, chairman.

1. To study the broad scope of Public Relations as it pertains to organized medicine.
2. Develop radio programs.
3. Organize a Speakers' Bureau.
4. Supervise newspaper releases and create the best of relations between medicine and the press.
5. Provide newspaper health articles.
6. Sponsor public lectures.
7. Prepare material for distribution on socialized medicine.
8. Present to the Society a guide for physicians in their efforts to realize, as individuals, the best of public relations in the practice of medicine.
9. Prepare educational exhibits for County Fair, libraries, schools, etc.
10. Furnish newspapers with accurate medical information when requested.

#### EDITORIAL COMMITTEE, LAKE COUNTY MEDICAL NEWS—N. K. Forster, editor, A. J. Lauer and C. H. Bendler, associate editors.

1. To develop and publish the monthly printed organ of the Lake County Medical Society.
2. To solicit and edit contributions of members.

#### COMMITTEE ON REGISTERED BLOOD DONORS—R. B. Nelson, chairman.

1. To study, develop and direct a bureau where blood donors may be typed and kept on record for use of physicians and hospitals.

#### COMMITTEE ON PUBLIC HEALTH—D. E. Gray, chairman.

1. Supervise Society's Public Health activities.
2. Advisory Committee to city and county health officers in health affairs.
3. Study of School Health Affairs.
4. Study of desirable general or specific health policies.

#### COMMITTEE ON CHILD WELFARE—T. J. Senesc, chairman.

1. Develop series of cards (for filing), outlining procedures in preventive medicine.
2. Sponsor programs for Child Health in cooperation with Women's Clubs, P.T.A.'s, etc.
3. Consider advisability of program in mental hygiene (in cooperation with committee on Mental Hygiene).
4. Develop preventive program for pre-school children.
5. Consider quarantine rules.
6. Furnish committee on Public Education with information regarding Child Welfare.

#### COMMITTEE ON PUBLIC NURSING—D. F. McGuire, chairman.

1. Consider advisability of a "Premature Infant Feeding and Nursing Bureau."

2. Consider all problems arising in connection with Public Health or private nursing work.
3. To develop better understanding between nurses and the medical profession.

COMMITTEE ON FIRST AID—*J. B. Burcham, chairman.*

1. Provide physicians as instructors to lay groups.
2. Cooperate with Safety Divisions of Associations of Commerce, Service Clubs, and others.
3. Advisory committee to Red Cross, Boy Scouts, and First Aid groups.

COMMITTEE ON MENTAL HYGIENE—*H. J. White, chairman.*

1. Develop rules to govern police department in dealing with sex offenders.
2. Inaugurate lay educational program in mental hygiene in cooperation with committee on Child Welfare.
3. Study conditions in county with a view to making recommendations.

PROGRAM COMMITTEE—*H. W. Eggers, chairman.*

1. Plan monthly scientific program.
2. Arrange symposia, local physicians participating.
3. Consider advisability of sponsoring programs in cooperation with various committees of Society.
4. Consider the planning of joint meeting with Lake County Dental Society.
5. Consider advisability of devoting fifteen minutes of each monthly meeting to medical economics.

COMMITTEE ON POSTGRADUATE EDUCATION—*F. R. Doll, chairman.*

1. Sponsor clinics.
2. Plan postgraduate courses.
3. Classify physicians according to types of practice.

SOCIAL AND ENTERTAINMENT COMMITTEE—*M. B. Gevirtz, chairman.*

1. Consider possibility of social hour and luncheon at monthly meetings.
2. Consider and develop annual golf tournament.
3. To arrange for and manage special regional meetings.
4. To be present and take care of meetings—introducing guests, making arrangements for relaying calls to members during meetings, etc.

MEMBERSHIP COMMITTEE—*J. R. Doty, chairman.*

1. Stimulate interne and junior memberships.
2. Obtain applications from eligible physicians who are not now members.

PHYSICIANS' WELFARE COMMITTEE—*A. G. Schlieker, chairman.*

1. Prepare obituary notices for *Medical News*.
2. Communicate with members of families of deceased physicians on behalf of the Society.
3. To arrange for suitable notice and visitations in case of illness or other misfortunes to any member of the Society.

LEGISLATIVE AND FINANCE COMMITTEE—*H. C. Groman, chairman.*

1. Take full charge of all legislative activity by the Society—federal, state, county, and city.
2. Build an organization within the Society through which all legislators can be reached quickly and effectively.
3. Encourage and support physicians seeking public office.
4. Eliminate irregular physicians, quacks, and fakes.
5. To supervise and audit the financial affairs of the Society.
6. To cooperate with the legislative committee of the State Medical Association.

COMMITTEE ON HOSPITAL RELATIONS—*J. P. Vye, chairman.*

1. Consider problems relating to hospitalization.
2. Make recommendations to the Council.
3. Bring about a better understanding of the joint problems in medicine and hospitalization.

COMMITTEE ON INDUSTRIAL RELATIONS—*T. J. Smith, chairman.*

1. To advise on hygiene as it relates to industry and the community.
2. Advise any groups who wish information on this subject.
3. Investigate and study occupational diseases in Lake County.
4. Study Workmen's Compensation as it relates to the practice of medicine and make recommendations to the Council.

**PLAN NOW**

to attend the

**ANNUAL POSTGRADUATE  
PROGRAM**

*of the*

**INDIANA UNIVERSITY SCHOOL  
OF MEDICINE  
IN INDIANAPOLIS**

**APRIL 10-15, 1939**

Program on page xxix



## Under the Capitol Dome

Ruth V. Kirk, executive secretary of the State Board of Medical Registration and Examination, announced that the annual examination of applicants for licenses which will be held June 20 to 22, inclusive, will be conducted in the Indianapolis Athletic Club. Persons wishing to take the examination should contact the board by June 1, she said.

### REHABILITATION WORK

A total of 547 physically handicapped persons of both sexes are being trained to take remunerative jobs through the state vocational rehabilitation service, according to Slater Bartlow, state supervisor of vocational rehabilitation.

In addition to those in training, 452 who have received vocational training for jobs in which their handicap makes no difference are awaiting placement in jobs.

Any citizen of employment age who has a physical disability which is a vocational handicap and who reasonably may be expected to be fitted for remunerative employment, is eligible for rehabilitation service, Mr. Bartlow explained. This, of course, excludes the aged or helpless persons requiring permanent custodial care, institutional inmates and persons deemed not susceptible of rehabilitation. The Indiana program is being carried out in conjunction with the Federal program.

The average cost to rehabilitate a case is approximately \$250, Mr. Bartlow said.

Since the program started in 1921 there have been 2,738 handicapped persons rehabilitated and placed back in gainful occupations. Last year 196 persons were rehabilitated and placed. The peak of placements occurred in the state fiscal year of 1935-1936 when 485 were placed. Economic conditions prohibit placements as fast as the persons are trained, it was explained.

The list of vocations in which disabled persons are being trained and employed is a long one. The point is to find the type of work in which a person's particular handicap either doesn't count or can be minimized, and such varied activities as accounting, agriculture, various types of shop work, home economics, the law, library work, even teaching, and numerous others, are included.

### NEW TRAFFIC SAFETY LAWS

State officials have begun steps to put into operation Indiana's new traffic safety laws which were enacted by the 1939 session of the General Assembly, just closed.

State police officials pointed out one phase of the new Act which they believed would be of particular interest to physicians and surgeons. This is Section 41 of the Uniform Act Regulating

Traffic on Highways (the principal one of the companion traffic measures). This section, in part, relates to the duty of persons involved in accidents to give information and render aid.

Drivers involved in accidents which result in the injury or death of any person, this section provides, must "... render to any person injured in such accident reasonable assistance, including the carrying or the making of arrangements for the carrying of such person to a physician, surgeon, or hospital for medical or surgical treatment, if it is apparent that such treatment is necessary or if such carrying is requested by the injured person."

Officials of the state police traffic safety division pointed out that this provision places responsibility entirely upon the motorist to determine the necessity of medical or surgical attention. No opinion has as yet been asked of the attorney general for an interpretation of this particular provision of the Act, but it was assumed by police officials that a common sense interpretation from the layman's point of view probably would be placed upon it. It also was pointed out that the effect might well be that motorists involved in accidents would insist upon taking persons, even apparently not actually in need of medical attention, to a surgeon for examination, because of the fact that the responsibility becomes that of the motorist under provisions of the new Act.

The old state laws on traffic, it was said at the state police traffic bureau, contained nothing that placed responsibility upon motorists involved in accidents to summon medical or surgical aid, or to take the accident victims to a physician's office or hospital.

Police officials also called attention to another provision of the new Act. This one (Section 44, sub-section b) requires that "every coroner or other official performing like functions upon learning of the death of a person in his jurisdiction as the result of a traffic accident shall immediately notify the department of public safety."

Don F. Stiver, state police superintendent, also pointed out that for the first time in Indiana this new law admits scientific methods to be used to determine whether a driver is intoxicated. Heretofore, only verbal testimony, such as the actions of the driver, the fact he reeled while walking, talked incoherently, etc., were used to establish drunkenness. This new Act, however, gets away from such unscientific methods, Mr. Stiver pointed out. Section 54, subsection 2, provides that at trials the court "may admit evidence of the amount of alcohol in the defendant's blood at the time alleged, as shown by a chemical analysis of his breath, urine or other bodily substance." The Act provides that evidence that there was, at the time, fifteen hundredths per cent, or more, by weight of alcohol in his blood, is *prima facie* evidence that the defendant was under the influence of intoxicating liquor suffi-

ciently to lessen his driving ability within the meaning of the statutory definitions of the offenses.

Superintendent Stiver pointed out that this scientific provision for determining intoxication will enable the police to use its drunk-o-meter system and other scientific methods available in the police criminological laboratory and at police barracks throughout the state.

## PIKE COUNTY MEDICAL SOCIETY CARRIES OUT THE INDIANA PLAN

Word has been received from the Pike County Medical Society on two public health projects that have been initiated and carried out under the direct auspices of the Society.

Their first program began last fall in the form of a Diphtheria Immunization Program. Reports show that, through the efforts of the County Medical Society cooperating with the local District Health Department of the Indiana State Board of Health and the Bureau of Maternal and Child-Health of the Indiana State Board of Health, seventeen hundred children between the ages of six months and ten years were immunized against diphtheria. This was done by all the doctors working in close cooperation. The report states that there was no discrimination made between rich or poor. The entire program was preceded by an educational program on the prevention of diphtheria which was conducted through the schools in cooperation with the county superintendent of schools and all the school teachers. Likewise, the churches united in carrying out this program. Considerable newspaper publicity was obtained by the county medical society. Circulars bearing the name of the county medical society were distributed over the entire county by the county public health nurse and the local District Health Department.

The second project of the society has just begun in the establishment of a prenatal clinic for indigent prospective mothers. The clinic is to be held every two weeks and is being given financial assistance through the local Red Cross Chapter and the Psi Iota Xi sorority. In addition, these two organizations are supplying material. The local secretary of the society has reported that every doctor in the county is entering into this project. The clinic is serviced by one doctor who serves six weeks and another doctor who serves for a period of three months. Their services are on a rotating basis. By this method an experienced doctor is always in charge of the work.

This is one way in which organized medicine can help defeat socialized medicine.

## VOICE OF THE DOCTOR

### DECALCOMANIACS

Dr. Arthur J. Geiger in the February issue of *Medical Economics* gives his solution for the doctor's R blanks problem. He objects to the use of R blanks which carry the name of a particular druggist because the patient may suspect the doctor of collecting a part of the price paid to the druggist for the prescription. The blanks which come free to the doctor by the proposed plan carry the doctor's name with all his wishes satisfied and the seal of the pharmaceutical association with these words: "Your prescription will be properly compounded in pharmacies displaying this emblem." All the doctor has to do to make the prescription *non repetatur* is to make a cross in a square provided on the blank. This makes it impossible for the patient to translate *non repetatur*. The plan relieves the doctor of all obligation to a druggist. Each druggist who gives this movement \$5.00 becomes a member and he is then allowed to grace his door with a decalcomania emblem, the proclamation of membership in the pharmaceutical association which gives the druggist increasingly apparent advantage over non-membership competition as years go by. The local county medical society must endorse the plan.

From its origin, this is advertising propaganda of the first water. Why should county medical societies force their pharmacists to join a movement to give them free prescription blanks? If a pharmacy firm pays for prescription blanks, why shouldn't it have the right to display its name and address? If a doctor uses blanks which are paid for by his druggist, should he feel free to disregard all obligation as the sponsors of the free prescription blanks claim to be the merit of their system?

This association will send the doctor the blanks directly or deliver them "by an association representative." If there is no malice aforethought, why aren't these blanks distributed through the druggists who pay into this organization? Why should we, as doctors, be soft-soaped into accepting something for nothing and then by every prescription that we write advertise to the community that a certain druggist has a decalcomania emblem over his door, whereas another druggist, equally as good but not so easily browbeaten, refuses to contribute to mass-production, impersonal methods but maintains efficient service for us? After all, what do we care whether our drugstores have a certain sign pasted over their doors? Why hang another lasso around their necks?

Most pharmacists are honest men. Few are untrustworthy. The honorable ones are educated, industrious, and eager to give us service of a high order. They are licensed by the state and federal governments. Shouldn't they be free to serve their customers and manage their own affairs without

COMING TO INDIANAPOLIS  
IN APRIL?

See page xxix



pressure from an additional organization? Shouldn't they be free to study their patron's needs and strive to meet them without fear of being boycotted by the county medical societies?

Every doctor has his preferential pharmacist or pharmacists. To these men he is a friend. He gets friendship in return. Such friendship carries obligation. From an ethical standpoint, should any man who accepts the friendship of another feel free to disregard it for personal gain? This is the chief objection to the free prescription blanks hoax. If I write for these blanks, personal gain is the prompting motive. My pharmacists find themselves placed on the spot because their doors do not carry the decalcomania emblem. Webster defines "decalcomania" as "the art or process of transferring pictures and designs, as from specially prepared paper to china, glass, marble, etc., and permanently fixing them thereto!" The article in question is proposing that we transfer our loyalty from special friends to a permanent resting place in organized pharmacy. In doing so we force our druggists to become decalcomaniacs.

If my druggist gives me free prescription blanks, it is a personal compliment. His service is the only proving grounds to merit trust in compounding prescriptions and ethical treatment of patients. If the patient prefers another druggist, that is a friendship which we are not free to disregard.

The article places the doctor and druggist on the fee splitting list if the name of the drug firm appears on the prescription, that is, some patients may choose to believe that way. This presupposes a lack of trust on the patient's part for his druggist and doctor.

Our profession proceeds on faith and trust. Should a patient suspect us of unfair dealing, all foundation for us doing that patient good is destroyed. We would not desire that patient to return to us. The pleasure and joy of medicine and surgery is destroyed.

I find my druggist, not a rascal in need of organized pharmaceutical spanking as some misbehaving child but, contrariwise, a responsible, intelligent adult willing to place on his shelves any article for my patient's benefit, willing to sacrifice his own convenience for me and my patients.

Make him join the "decalcomaniac union"? Why violate a beautiful friendship?

M. F. POLAND, M.D.,  
Bloomington, Indiana.

#### FEVER OF UNKNOWN ORIGIN

March 7, 1939.

*To the Editor:*

I read with interest the report of a case of fever of unknown origin by Dr. M. B. Welborn in the March issue of *THE JOURNAL* and would like to make a few comments on it concerning the laboratory diagnosis of undulant fever.

The author apparently considered the diagnosis

of Brucellosis (undulant fever) but states that "repeated negative agglutination tests for *Brucella* would seem to rule out this disease as a possible etiological agent." This conception, that repeated negative agglutination tests for *Brucella abortus* or *mellitensis* rule out the possibility of undulant fever, is frequently encountered, but is not corroborated by facts. In fact, in about five to fifteen per cent of active cases of undulant fever for some reasons no agglutinins are demonstrable in the blood, although the organism can be isolated and identified. Therefore, while positive agglutination test for *Brucella* definitely establishes the diagnosis, (provided the possible cross-agglutination with *Bacterium tularense* is ruled out) negative agglutination tests, even on repeated occasions, do *not* rule out Brucellosis. For diagnosis of such cases which fail to develop agglutinins, the intradermal test and determination of the opsonocytaphagic power of the blood are of great value. Recent reports seem to indicate that in *Brucella* infections sulfanilamide increases the opsonocytaphagic activity of the blood for *Brucella* organisms. This may be utilized for diagnosis in certain cases.

The author does not state whether these tests have been carried out in the reported case. If not, the diagnosis of undulant fever certainly cannot be ruled out, particularly in the presence of a rather suggestive clinical history. The findings of a small gram-negative rod in the blood cultures may, of course, mean a *Brucella* organism, but a spore bearing organism would seem to represent more likely contamination.

I thought it worth while to comment on this point as the incidence of undulant fever appears to be increasing and all available methods should be utilized for detection and control of obscure cases.

LEON L. BLUM, M.D.,  
Terre Haute.

March 18, 1939.

*To the Editor:*

I appreciate Dr. Blum's comment on my article and I am glad that he stressed the fact that a negative agglutination test does not always rule out undulant fever. I did not have opportunity to enlarge on this point in my original article. It should be noted that a skin test for undulant fever on July 31, 1936, (as mentioned in the article) was negative.

Perhaps a point of more importance would be that in the agglutination test there is more than one strain of organism capable of producing what is clinically termed undulant fever. It is usually necessary, therefore, to agglutinate against all of these various types.

M. B. WELBORN, M.D.,  
Evansville.

## Deaths

HARRY C. PEPPER, M.D., of Orleans, was fatally shot, March sixth. Dr. Pepper was thirty-three years old. He graduated from the Indiana University School of Medicine in 1933 and had been practicing in Orleans for more than a year. Dr. Pepper was a member of the Orange County Medical Society, the Indiana State Medical Association and the American Medical Association.

JOHN HENRY REED, M.D., of Logansport, aged seventy-eight years, died March second of pneumonia after an illness of a few days. Dr. Reed graduated from the University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, in 1885. He started his practice in Idaville, Indiana, later moving to Burnettsville, and to Monticello. In 1904 he located in Logansport where he remained. Dr. Reed was an active member of his district medical society, serving as an officer for many years. He was a member of the Cass County Medical Society, the Indiana State Medical Association and the American Medical Association.

FRANKLIN YOUNG, M.D., of Terre Haute, died in Union Hospital, March sixth, aged seventy-two years. Dr. Young had practiced in Terre Haute for twenty-five years. He graduated from the Eclectic Medical College, Cincinnati, in 1890, and was a member of the Vigo County Medical Society, the Indiana State Medical Association, and the American Medical Association.

THOMAS F. RINGLE, aged eighty-seven, died at his home in Tippecanoe, February fifteenth. He had practiced in Tippecanoe for forty-one years. He was not a graduate of a medical school, but was licensed in 1897.

JOHN M. WILLIAMS, M.D., of Owensville, died January thirtieth, aged eighty-two years. Dr. Williams had retired from active practice. He graduated from the Eclectic Medical College, Cincinnati, in 1881.

EDWARD T. JULIAN, M.D., of Harlan, died February twenty-fifth, aged seventy-three years. Dr. Julian graduated from the Kentucky School of Medicine, Louisville, in 1891, and had practiced in Nebraska and in Harlan, Indiana, where he had been for more than thirty years.

IRA MILTIMORE, M.D., of Gary, a pioneer resident and well known surgeon, died of a heart attack at his home in Gary, February fourteenth. Dr. Miltimore was fifty-eight years old. For

many years he was surgeon for the Gary works hospital of the Illinois Steel company. He had retired from medical practice nearly a year ago. Dr. Miltimore graduated from the Rush Medical School, University of Chicago, in 1903. He was a member of the Lake County Medical Society, the Indiana State Medical Association, the American Medical Association, and was a Fellow of the American College of Surgeons.

ROBERT E. ZIMMERMAN, M.D., aged twenty-seven, a former resident of Muncie, was found frozen to death February eighth, near McIntosh, South Dakota. Dr. Zimmerman was an interne at Butte, Montana, and was returning to his work after a visit with his parents in Muncie, Indiana. Mrs. Zimmerman and their two sons had remained to visit relatives in Indianapolis.

GEORGE R. PECKINPAUGH, M.D., of Mount Vernon, died February tenth, aged eighty-four years. Dr. Peckinpaugh graduated from the Medical College of Ohio, Cincinnati, in 1882, and had practiced in Evansville and Mount Vernon. He had retired from active practice several years ago.

## News Notes

Dr. Russell W. Lavengood of Marion has been appointed secretary-treasurer of the Grant County Medical Society to succeed the late Dr. R. E. LeMaster.

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Dr. F. S. Crockett of Lafayette talked on "Socialization of Medicine" before the Boswell Community Club, February twenty-first.

\* \* \*

Dr. and Mrs. James H. Stygal and their son, of Indianapolis, took a late winter cruise to Bermuda in March.

\* \* \*

The twelve room residence and office of Dr. Robert Harris of Noblesville was destroyed by fire, February twenty-fifth.

\* \* \*

Dr. F. H. Austin of Bloomington spoke to members of the Bloomington Exchange Club, February fourteenth, on the subject of "The Eradication of Syphilis."

\* \* \*

Dr. Margaret T. Owen of Attica talked on socialized medicine before members of the Attica Business and Professional Women's Club, February thirteenth.



Dr. Exie Welsch of Indianapolis spoke before the Vigo County Medical Society Auxiliary in Terre Haute, March sixth. The meeting was open to the general public.

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Indianapolis health board records show that the tuberculosis death rate in Indianapolis for 1938 was the lowest in the city's history. The rate was .78 per 1,000 persons, a reduction of 1.22 since 1918 when the rate was 2 per 1,000.

\* \* \*

Dr. R. E. Wynne, of Bedford, spoke before the Bedford Lions Club, February twenty-second, on the subject of syphilis. Dr. John Dalton, of Indianapolis, talked on "Syphilis" before the Bedford Rotary Club, February twenty-third.

\* \* \*

Every Saturday afternoon at 4:45, station WHAS in Louisville will broadcast a dramatization of some of the events of medical and public health history in Kentucky. The programs are sponsored by the Kentucky State Board of Health.

\* \* \*

Dr. M. A. Austin, of Anderson, has been re-elected president of the Indiana alumni association of Nu Sigma Nu fraternity for the third consecutive time. The annual meeting was held in Indianapolis, February eighteenth.

\* \* \*

The current issue of the *Alumni Council Bulletin* of Amherst College is dedicated to the memory of Dr. Charles P. Emerson of Indianapolis, a graduate of the college and former dean of the Indiana University School of Medicine, who died September 26, 1939.

\* \* \*

In an address before the May Wright Sewall Indiana Council of Women, in Indianapolis, February 16, Dr. Karl R. Ruddell, president-elect of the Indiana State Medical Association, traced the progress of medicine. Dr. R. N. Harger of the Indiana University School of Medicine demonstrated the drunkometer.

\* \* \*

For the fifth consecutive year, the psychiatric staff of the Menninger Clinic, Topeka, Kansas, will offer a week's postgraduate course in "Neuropsychiatry in General Practice," April 17 to 22. This practical presentation of dynamic psychiatry through lectures and case presentations has been attended by physicians from nineteen states in the past four years. Enrollment is limited to thirty. Address inquiries to Dr. Robert P. Knight, Chairman.

Dr. Charles F. Kaadt, owner and president of the Kaadt Diabetic Institute of South Whitley, was arrested, February twenty-third, on a Federal grand jury indictment charging him with false representations through the mails. The district attorney charged that Kaadt had treated thousands of people "with remedies of no medicinal value."

\* \* \*

Dr. G. H. Kamman, secretary of the Seymour Board of Health, spoke before members of the Seymour Lions Club, February twenty-eighth, on the subject of health conditions in their city. Dr. Kamman pointed out that 1937 was a record in so far as births and deaths were concerned in more than eight years. In 1938, there were 237 births, and only 119 deaths.

\* \* \*

The Woman's Auxiliary to the Marion County Medical Society held a Public Relations Tea, March thirteenth, in Block's Auditorium, Indianapolis. "Sanitation of Public Eating Places," and "Advances in Scientific Control of Disease," were discussed by H. V. Darnell of the Indiana State Board of Health and Dr. E. O. Asher of New Augusta.

\* \* \*

The California State Personnel Board is offering civil service examinations for student intern and senior intern for state employment for the purpose of obtaining eligibles to fill anticipated vacancies at the various state institutions. There are no residence requirements and no written tests will be given. Applicants will be rated on education, experience, and appraisal of scholastic record. Further information and application blanks may be obtained from California State Personnel Board, 1025 P Street, Sacramento, California.

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General oral, clinical and pathological examinations for all candidates, Part II examinations (Groups A and B), of the American Board of Obstetrics and Gynecology, will be conducted by the entire Board at St. Louis, Missouri, May 15 and 16, 1939, just prior to the A.M.A. meeting. Candidates for reexamination in Part II must request such examination by writing to the Secretary's office before April 1, 1939. Application blanks and other information may be obtained from Dr. Paul Titus, secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

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#### AMERICAN HEART ASSOCIATION

The fourteenth scientific sessions of the American Heart Association will be held at the Hotel Jefferson, St. Louis, Missouri, May twelfth. The program of the Section for the Study of the Peripheral Circulation will be held on Saturday, May thirteenth.

#### AMERICAN BOARD OF INTERNAL MEDICINE

Written examinations for certification by the American Board of Internal Medicine will be held in various sections of the United States on the third Monday in October and the third Monday in February.

Formal application must be received by the Secretary before August 20, 1939, for the October 16, 1939, examination, and on or before January 1 for the February 19, 1940, examination.

Application forms may be obtained from Dr. William S. Middleton, Secretary-Treasurer, 1301 University Avenue, Madison, Wisconsin, U. S. A.

#### CIVIL SERVICE EXAMINATIONS FOR MEDICAL AND NURSING POSITIONS

The U. S. Civil Service Commission announces open competitive examinations for the positions of associate public health nursing consultant and assistant public health nursing consultant in the U. S. Public Health Service, applications for which positions must be filed by April 10, 1939. Complete information and application blanks may be obtained by writing to the U. S. Civil Service Commission, Washington, D. C.

The U. S. Civil Service Commission announces open competitive examinations for associate medical officer (general practice) in the Veterans' Administration, applications for which position must be on file by April 10, 1939, with the Commission at Washington, D. C., from where complete information and application blanks may be obtained.

#### PAMPHLETS ON SYPHILIS FOR THE LAYMAN

The United States Public Health Service last spring published a pamphlet entitled "Syphilis—Its Cause, Its Spread, Its Cure." The booklet provided facts about syphilis for the layman and encouraged patients to continue their treatments. More than 800,000 copies of the pamphlet have been sold. Now a companion folder has been published, called "Syphilis and Your Town"; it outlines the essential points of a community control program. Together the two folders tell the whole story of syphilis for the layman—the disease, the treatment, the facilities each town needs to find and treat syphilis are outlined clearly and concisely. They are obtainable for one dollar per hundred copies from the Superintendent of Documents, Washington, D.C.

#### ASSISTANCE FOR DISTRICT PROGRAM CHAIRMEN

The Bureau of Maternal and Child-Health of the Indiana State Board of Health, in cooperation with the committee on Medical Education of the Indiana State Medical Association, will assist district medical societies in any way possible to arrange programs for spring meetings. The Bureau has

available health exhibits, posters, moving pictures, and other educational material which can be used before lay or medical audiences, and the Bureau will work with program chairmen in securing and financing speakers to appear on the various programs providing the speakers' subject matter is limited to the field of obstetrics or pediatrics. Inquiries may be addressed to Dr. Howard Mettel, Bureau of Maternal and Child Health, Indiana State Board of Health, State House Annex, Indianapolis.

#### FOUNDATION PRIZE OF AMERICAN ASSOCIATION OF OBSTETRICIANS, GYNECOLOGISTS AND ABDOMINAL SURGEONS

The American Association of Obstetricians, Gynecologists and Abdominal Surgeons announces that the annual Foundation Prize for this year will be \$100. Those eligible include only (1) interns, residents, or graduate students in obstetrics, gynecology and abdominal surgery, and (2) physicians (M.D. degree) who are actually practicing or teaching obstetrics, gynecology or abdominal surgery.

Competing manuscripts must be presented in triplicate under a nom-de-plume to the secretary of the Association before June 1, 1939; must be limited to 5,000 words and such illustrations as are necessary for a clear exposition of the thesis, and must be typewritten (double spaced). The successful thesis must be presented at the next annual (September) meeting of the Association, without expense to the Association and in conformity with its regulations.

For complete details, address Dr. James R. Bloss, secretary, 418 Eleventh Street, Huntington, West Virginia.

#### VAN METER PRIZE AWARD OF \$300

The American Association for the Study of Goiter again offers the Van Meter prize award of \$300 and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The award will be made at the annual meeting of the Association in Cincinnati, May 22, 23 and 24, 1939, providing that essays of sufficient merit are presented in competition.

Competing essays may cover clinical or research investigations; should not exceed 3,000 words in length; must be presented in English; and a typewritten, double-spaced copy sent to the corresponding secretary, W. Blair Mosser, M.D., 133 Biddle Street, Kane, Pennsylvania, not later than April 15, 1939.

PLAN TO ATTEND THE I.U. MEDICAL SCHOOL  
POSTGRADUATE COURSE IN INDIANAPOLIS,  
APRIL 10-15



Nearly 100,000 people in Lake County saw the moving picture "A New Day" produced by the U. S. Public Health Service and the Metropolitan Life Insurance Company and presented under the sponsorship of the Lake County Medical Society in the theaters of Gary, East Chicago, Whiting, Hammond, and Indiana Harbor during the month of February. The film is in the interest of the control of pneumonia.

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#### CHANGE IN PSYCHIATRIC PROGRAM OF INDIANA STATE BOARD OF HEALTH

**Dr. Exie Welsch Transferred to Bureau of Mental Care of Department of Public Welfare**

Announcement has been made by the Indiana State Board of Health that the services of Dr. Exie E. Welsch have been transferred to the Bureau of Mental Care of the Indiana State Department of Public Welfare, effective March 1, 1939. For the past two years, Dr. Welsch has been directing the mental hygiene program of the Bureau of Maternal and Child Health.

Dr. Welsch will assist Dr. George L. Stevens in organizing and setting up the mental hygiene clinics as described in the March issue of this JOURNAL (page 141). The liaison committee of the Indiana State Medical Association to the Indiana State Board of Health and the Committee on Mental Health of the State Association agreed that there was no need for two distinct mental hygiene programs with similar aims being conducted in both the Indiana State Board of Health and the State Department of Public Welfare. The Bureau of Maternal and Child Health of the Indiana State Board of Health and the Division of Dependent Children of the State Welfare Department will continue to act as counsel and in co-operation with the newly established Mental Hygiene Clinics for Indiana. The program under the direction of Dr. Welsch was begun as a demonstration program of the Bureau of Maternal and Child Health and was placed in the proper agency when the demonstration had proved the value and necessity of its continuance.

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#### ANNUAL MEETING OF INDIANA TUBERCULOSIS ASSOCIATION

Two interesting talks will feature the annual meeting of the Indiana Tuberculosis Association which will be held jointly with the regular meeting of the Indianapolis Medical Society on April 18 at the Lincoln Hotel, Indianapolis. This session, which will open at 8:00 p. m., will be addressed by Dr. J. A. Myers, professor of Preventive Medicine of the University of Minnesota Medical School. Dr. Myers will discuss "Scientific Procedures in the Diagnosis and Control of Tuberculosis." Following this Dr. Paul A. Teschner of the Bureau

of Health Education of the American Medical Association, Chicago, will speak on "Telling the Public the Facts."

There will be two sessions on April 19. The first will begin at 9:30 a. m., with Dr. M. R. Lohman of Fort Wayne, president of the Indiana Tuberculosis Association, presiding. The program follows:

#### *Program*

**Tuberculosis Among Young Adults.** By F. L. Jennings, M.D., Sunnyside Sanatorium, Indianapolis

**Panel on Hypothetical Case.** Led by Paul D. Crimm, M.D., Evansville; and discussed by G. A. Dickinson, M.D., Petersburg; George R. Dillinger, M.D., French Lick; C. G. Kern, M.D., Lebanon, O. T. Kidder, M.D., Fort Wayne.

At 2:00 p. m., the afternoon session will convene in charge of Dr. Paul D. Crimm, president of the Indiana Trudeau Society. The following papers will be presented:

**Lympho-Carcinoma of the Mediastinum.** By R. C. Meyer, M.D., of Hillcrest Tuberculosis Hospital, Vincennes.

**Surgical Disposition of Medical Cases.** Discussed by C. J. McIntyre, M.D., Indianapolis; R. A. Staff, M.D., Richmond; H. B. Pirkle, M.D., Rockville; J. W. Strayer, M.D., Lafayette, and J. H. Stygall, M.D., Indianapolis.

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#### UNION DISTRICT MEDICAL SOCIETY

The Union District Medical Society will hold its 142nd semi-annual meeting in Eaton, Ohio, April 27, 1939. The program will begin at 11:00 a.m., Eastern Standard Time.

#### *Program*

1. State and Federal Medicine  
By Thomas A. Hendricks, executive secretary, Indiana State Medical Association
2. Value of Electrocardiograph in Everyday Practice  
By Harry P. Ross, M.D., Richmond, Ind.  
Luncheon at the Congregational Christian Church  
Informal discussion of Group Hospital plans
3. John Smith, D.P. (dementia praecox) and His Shock Treatments  
By Clyde E. Shinkle, M.D., Cincinnati
4. Otitis Media and Mastoiditis with Special Attention to the Newer Treatment of the Complication of Meningitis  
By Robert M. Dearmin, M.D., Indianapolis

### ELEVENTH DISTRICT SOCIETY

The sixty-first semi-annual meeting of the Eleventh Indiana Councilor District Medical Association will be held at Peru, May 10, 1939. The program is as follows:

#### *Morning*

- 10:00 a.m.—Clinic. Cardio-Renal Diseases.  
Howard Odel, M.D., Rochester, Minn.  
12:00-1:30—Recess for luncheon.

#### *Afternoon*

- 1:30 p.m.—Business meeting.  
2:00 p.m.—General meeting.  
1. President's Address—H. M. Rhorer, M.D., Kokomo.  
2. (subject to be announced)—E. O. Asher, M.D., New Augusta.  
3. Essential Hypertension—Diagnosis and Management. Howard Odel, M.D., Rochester, Minnesota.  
4. The Acute Ear. (Illustrated.) O. G. Brubaker, M.D., North Manchester.  
5. General Discussion.  
6. Brief talks by representatives from the Indiana State Medical Association.

#### *Evening*

- 6:00 p.m.—Banquet, under the auspices of the Miami County Medical Society.  
Address: Germany and Her Neighbors.  
By Professor A. W. Cordier, Manchester College, North Manchester.

Members of the Indiana State Medical Association, particularly members of adjoining county societies, are invited to attend this meeting.

### THE NORTHERN TRI-STATE MEDICAL ASSOCIATION ANNUAL MEETING IN SOUTH BEND, APRIL 11, 1939, AT THE HOTEL OLIVER

#### *Program*

- 8:00 a.m. Charles G. Johnston, M.D., Professor of Surgery, Detroit College of Medicine.  
"Physiological Implications in the Management of Intestinal Obstruction."  
8:45 a.m. Waldo E. Nelson, M.D., Department of Pediatrics, College of Medicine, University of Cincinnati.  
"The Treatment of Diabetes Mellitus in Children."  
9:30 a.m. Frank C. Walker, M.D., Indianapolis,  
"The Relation of Cervical Lesions to Carcinoma of Cervix Uteri."  
10:15 a.m. Daniel P. Foster, M.D., Physician in Charge, Division of Metabolism, Henry Ford Hospital.  
"Newer Concepts of Diabetes Mellitus."

- 11:00 a.m. Harold N. Cole, M.D., Clinical Professor of Dermatology and Syphilology, Western Reserve University School of Medicine.  
"Relapse in Syphilis, Its Importance in Diagnosis, The Public Health Aspect, and Its Treatment."

#### *Luncheon*

- 1:00 p.m. A. C. Furstenberg, M.D., Dean and Professor of Otolaryngology, University of Michigan Medical School.  
"Nasal Accessory Sinus Disease in the General Practice of Medicine."  
1:45 p.m. Bruce K. Wiseman, M.D., Associate Professor of Medicine, Ohio State University College of Medicine.  
"The Cytolytic Functions of the Spleen in Relation to the Blood Diseases."  
2:30 p.m. Norris W. Gillette, M.D., Toledo, Ohio.  
"Diagnosis and Results of Treatment of Toxic Goitre."  
3:15 to 3:30 p.m. Business Meeting.  
3:30 p.m. A. Jerome Sparks, M.D., Fort Wayne,  
"Calculi in the Upper Urinary Tract."  
4:15 p.m. David Edwin Robertson, M.D., Assistant Professor of Surgery, University of Toronto.  
"The Standard Treatment of Infantile Paralysis."  
6:00 to 7:00 p.m. Banquet. Ballroom, Hotel Oliver.  
7:00 to 8:00 p.m. George B. Eusterman, M.D., Clinical Section, Mayo Clinic, Rochester, Minnesota.  
"Chronic Inflammatory Lesions of the Gastric and Duodenal Mucosa; Their Significance in Medical Practice."

### TEN CARDINAL POINTS IN THE PLATFORM OF THE AMERICAN ASSOCIATION FOR HEALTH, PHYSICAL EDUCATION, AND RECREATION—A DEPARTMENT OF THE NATIONAL EDUCATION ASSOCIATION

An adequate education will include worthwhile experiences in health, physical education, and recreation. Not only the concept of unity of the organism but also the clear recognition of the interrelations between organism and environment require that this education, if it is to be adequate, must concern itself with facilities, program, and leadership. This may be accomplished through the development of:

1. A comprehensive protection program of children, including an adequate health examination, control of communicable diseases, and healthful school living in the entire curricular and extra-curricular life of the school, directed toward the educational goal of developing capacity for self-direction in health matters.
2. Health instruction based upon scientific materials progressively arranged throughout the grades and upper schools, and directed toward personal accomplishment and social ideals. Safety should be included in this instruction.



3. A physical education program for all pupils every day using activities that are educationally sound as well as developmentally desirable, progressively graded, and adapted to meet individual and group needs.

4. Opportunities for the development of skills and interests in recreational hobbies that may range the entire curriculum, but centering most often in music; literature and drama; fine plastic, and industrial arts; physical education; and various club activities of the school.

5. Adequate indoor and outdoor facilities and sufficient time in the curriculum for all parts of the program, properly prepared personnel, and organization of pupils to permit the development of good instructional programs.

6. Procedures for the scientific classification, grading, and promotion of pupils in harmony with the best practice in general education.

7. The organization and administration of health, physical education, and recreation in the schools as a single, executive department, utilizing community and school efforts and resources in the establishment of common purposes and policies as to finance, use of facilities, and cooperative working relationships among the personnel involved, all directed toward and thoroughly integrated with the general purpose of education.

8. The accreditation of health, physical education, and recreation activities in all schools and colleges for graduation and acceptance from high school for college entrance.

9. Extension of the desirable and practical measures for the promotion of health, physical education, and recreation among boys and girls in schools to all members of the community, as the broader implications of education are accepted, and as the ideas of play and recreation as aspects of the finest living gain recognition.

10. Professionally educated and adequately accredited administrators, supervisors, teachers, and specialists for all aspects of the health, physical education, and recreation program. Personnel should be recognized as including school physicians, dentists, nurses, nutritionists, mental hygienists, and other special health workers, physical educators including athletic coaches, and recreational workers and teachers.

#### COMMITTEE ON STUDY OF INFANT AND MATERNAL MORTALITY RECOMMENDS CONTINUANCE OF STUDY

At a recent meeting of the Committee on the Study of Infant and Maternal Mortality of the Indiana State Medical Association, the preliminary report on this study was reviewed and is to be finally assembled for publication in the May issue of THE JOURNAL.

The Committee feels very gratified with the response of the physicians throughout the state in conducting this study. They feel a great deal of valuable information has been received through this cooperation on the part of the physicians, and that many interesting factors and deductions can be obtained from this study.

In view of the fact that this study represents only a twelve months period, the Committee has recommended that the study be continued for an additional two years. The response to questionnaires sent out through the past year was nearly 70%. It is hoped that the physicians of the state will continue their interest in this study by completely and promptly filling out and returning the questionnaires. This work of the Committee

has been completed through the cooperation of Doctor James H. Hawk, Indianapolis, and the Bureau of Maternal and Child Health of the Indiana State Board of Health.

#### INDIANA UNIVERSITY NEWS NOTES

Fourteen members of the first year class of the Indiana University School of Medicine were initiated Saturday, Feb. 18, into the Nu Sigma Nu honorary medical fraternity. The initiation services were held at the Indianapolis Athletic Club Saturday afternoon and were followed by a stag banquet and a formal dance.

Pledges initiated into the fraternity were: John B. Westfall, Indianapolis; Griffith Marr, Columbus; John J. Rieder, South Bend; C. Karl Kuehne, South Bend; Robert A. Craig, Gary; George Compton, Indianapolis; Warren Polhemus, Anderson; Theodore F. Schlaegel, Indianapolis; William A. Karsell, Bloomington; Wallace E. Bash, Warsaw; Richard Woolery, Bedford; Edgar A. Hawk, New Palestine; M. Harrison Green, Indianapolis, and C. Jules Heriter, Columbia City.

Rural states, such as Indiana, probably have slightly lower syphilitic rates than the national as a whole, according to Dr. Harvey J. Locke of the Indiana University Sociology Department. Dr. Locke explains this fact in his report on Social Aspects of Syphilis to Governor Townsend's Committee for the Study of Marriage Legislation. Dr. Locke was asked to make such a study and report by Dr. Verne K. Harvey, director of the State Board of Health.

In his study, which has just been completed, Dr. Locke presents material on the extent of syphilis in the United States, the methods by which this disease is controlled in foreign countries, control programs in the United States, including those practiced in individual states and those advocated by students of this problem, and, finally, changes in attitudes toward venereal diseases.

"The problem of control of syphilis in a rural state will be different from control in a predominantly urban state," Dr. Locke says in his report. "For one thing rural people have more difficulty in securing medical treatment than do urban people. The control of syphilis among Negroes is not as serious a problem in Indiana and most other northern states as in states where the proportion of Negroes is higher. Only 3.4 per cent or 111,982 of Indiana's population is Negro. However, 92 per cent of these, according to the 1930 census, live in urban areas. Finally, consideration should be given to the fact that syphilis is exceedingly prevalent among those with low economic standards and educational achievement."

Prof. Locke points out that the success of the campaign against syphilis in Europe is evidenced by

the decreasing syphilitic rates for the various countries. While the early statistics on the prevalence of syphilis should be discounted somewhat, the earlier rates of all these countries, and particularly Denmark, England, Norway and Sweden, were very high as compared with their present rates, according to Dr. Locke.

In 1935, the attack rate of syphilis in the United States was 17 times that of Great Britain, 40 times that of Denmark and more than 100 times that of Sweden.

A control program involves the discovery of infected cases through routine testing of as many groups as possible, adequate treatment of infected cases, and a reliance upon educating the general public on the time, expense, means of securing treatment and ways of preventing infection, Dr. Locke goes ahead to explain.

In discussing control programs in the United States, Dr. Locke deals with the following standardized procedures in control programs which have been either extensively used or widely advocated: (1) routine testing, (2) attacks on prostitution, (3) treatment by clinics and private physicians, (4) reporting, (5) follow-up services and (6a) prophylactic measures.

"The ultimate control of syphilis depends upon its eradication through medical treatment," Dr. Locke says. "Consequently, clinics and private physicians must be an integrated part of any control program. In the United States clinics are inadequate in number, unevenly distributed, some are inefficiently operated, and often clinics are opposed by private practitioners. While it is estimated that a little over half of the known syphilitic infections receive treatment from clinics, and while there are about 1,000, of which 511 are either state operated or subsidized, only 15 states have one clinic per 100,000 population.

"Public health authorities are largely agreed that if syphilis is to be effectively controlled, it must be handled just as any other communicable disease. Reporting is a fundamental principle in the control of communicable diseases and should be a part of a syphilis program."

Dr. Locke explains that the changing attitudes of the public toward venereal diseases have been traced from the beginning of the century up to the present time and an attempt has been made to show the factors related to these changes. Particular attention has been paid to the use and influence of education and propaganda. The four periods may be summarized as follows: (1) before the world war; (2) the war period; (3) the post-war period, and (4) the 1930 decade.

"The uncoordinated activities of the early years of the decade generated aggressive interest in many groups throughout the country," Dr. Locke says. "This aggressive interest was ready to be tapped when Dr. Thomas Parran, surgeon general of the U. S. Public Health Service, initiated his national publicity campaign against venereal dis-

eases. Various indices such as the lack of newspaper taboos, increasing radio talks, the increased number of published articles on the subject, and polls of public opinion show that the public is in general favorable toward venereal disease control programs. However, such things as unwillingness to have cases of venereal diseases reported, employees losing their jobs when it is known that they are infected, and the general loss of status when it is known that a person has a venereal disease, show the persistence of traditional attitudes toward venereal diseases."

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A total of 7,638 patients, including 708 newborn babies and their mothers, were cared for in the indigent wards of the Indiana University Medical Center Hospitals during 1938, according to Dean W. D. Gatch of the Indiana University School of Medicine in Indianapolis, in a partial report on the operation of the hospitals.

All were certified to the hospitals as charity cases, the report set out.

In addition to the thousands occupying the beds of the institutions, the various outpatient clinics operated in the medical center cared for additional thousands, a total of 40,432 visits to these clinics being recorded during the year.

A total of 140,436 days of treatment were given the 7,638 patients who occupied the beds of the hospitals during the year.

The medical center statistics were contained in a partial report by the dean to Herman B. Wells, president of Indiana University. The report covered the general operation of the James Whitcomb Riley Hospital for Children, the Robert W. Long Hospital and the William H. Coleman Hospital for Women. All are operated as a part of the University Medical Center.

"Despite the fact that we have extended every resource at our command and have used every available bed and have kept our length of stay reduced to a minimum consistent with safety and good practice, the Medical Center hospitals are today confronted with the largest waiting list in history and many of those waiting for admission are very sick persons," Dean Gatch said. "On the average there are 15 applicants for every bed in the institutions.

"In the Riley, most fortunately, we are taking care of emergency cases as they come and, because of capacity and for other reasons, are, we believe, somewhat adequately meeting the demand for admission.

"In the Long and Coleman Hospitals our problem is exceedingly serious. We hope in some measure to alleviate the situation in these hospitals in the near future through the equipment of an additional floor of 85 beds which will enable the greater use of splendid new equipment for the cancer and tumor clinics, for which many patients are waiting, and through the equipment of new operating rooms. Our problems have been



simplified, too, through the construction of the new clinical building in which we were able to consolidate heretofore scattered laboratory and other services and gain greater efficiency and thoroughness in operation."

Three thousand, three hundred and sixty-one children under the age of 16 were cared for in the Riley Hospital, 1,838 patients were admitted to the charity wards of the Long Hospital and 1,431 adults were cared for in the Coleman Hospital. In addition to the adults in this hospital the baby wards cared for 708 new youngsters.

In another part of the report Dean Gatch pointed out that there was no disposition on the part of the medical school to attempt to care for all the great numbers of indigent sick of the state. The bed capacity of the hospitals, with the exception of Riley, he said, was being kept consistent with the requirements of the medical school, the school authorities bearing in mind that the medical school was primarily a teaching institution devoted to the proper training of doctors, nurses and technicians necessary in the field of medicine.

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A nine-point program for the training of public health educators in teacher training institutions was presented to the Indiana Advisory Health Council at a recent meeting of the Indiana University Medical Center.

Dr. L. A. Pittenger, president of Ball State College, Muncie, chairman of a sub-committee which investigated the feasibility of such training, presented the report.

Dr. W. D. Gatch, chairman of the Council, a governor's commission required by the federal Social Security Act, presided and spoke on "Newer Concepts in the Field of Medical Education." The Council is composed of educators and public health officials and meets semi-annually to make recommendations to the governor. Dr. Gatch is dean of the Indiana University School of Medicine in Indianapolis.

Dr. Pittenger's report pointed out that public health education should include, among other things, a background of human biology, first aid and safety, mental hygiene, community hygiene, personal health, child hygiene, anatomy and physiology, physical education and social recreation.

At its meeting last summer the Council decided to investigate the feasibility of broadening public health education in the schools after several members, notably Dr. W. W. Patty, director of the Physical Welfare Training Department of Indiana University, and Dr. Herman Baker, then president of the Indiana State Medical Association, had stressed the importance of such a program. It was pointed out, however, that the principal obstacle was giving teachers sufficient medical education to make their work in the schools effective.

Dr. Pittenger's report said that "we should move slowly in setting up specific health licenses," and that "a program of licensing health teachers should continue to demand the cooperation of the medical profession and the State Board of Education."

The report was the first step towards broadening the present physical education program into a general health education program.

Others on the sub-committee are Dr. Verne Harvey, director of the State Board of Health; Floyd I. McMurray, state superintendent of public instruction, Dr. Patty and Dr. Baker.

Others on the speaking program included Dr. Howard B. Mettel, chief of the bureau of maternal and child health of the state health board, who discussed progress of the bureau's program to reduce infant and maternal mortality through education and nursing service among underprivileged groups; Dr. Harvey, who discussed acts of the present legislature pertaining to public health; Dr. Louis W. Spolyar, chief of the Bureau of Industrial Hygiene of the state health board, who reported on a survey of Indiana industries; and Dr. Clyde G. Culbertson, director of the laboratory of the state health board and the Indiana University School of Medicine.

Among members of the Council are Dr. Henry F. Beckman, professor of obstetrics at the Indiana University School of Medicine in Indianapolis; Robert E. Cavanaugh, director of the Indiana University Extension Division; Dr. O. N. Torian, professor of Pediatrics at the School of Medicine in Indianapolis; Dr. Thurman B. Rice, director of the Bureau of Health and Physical Education of the Indiana State Board of Health, and Dr. G. D. Timmons, acting dean of the Indiana University School of Dentistry.

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Seniors of the Indiana University School of Medicine were guests of the Eli Lilly and Company of Indianapolis in a tour of inspection, a luncheon and a dinner. The company has been host to the class each year for nearly a quarter of a century.

The 108 members of the class started an inspection of the pharmaceutical laboratories at 8:30 a.m., received a welcome from J. K. Lilly, Jr., and had lunch in the Lilly cafeteria. The afternoon was devoted to further inspections, including the Lilly Biological laboratories at Greenfield. Dinner was served at the Hotel Severin and Dr. C. G. Weigand of the company's professional relations staff, was the principal speaker. Dr. W. D. Gatch, dean of the Indiana University School of Medicine, represented his students on the program.

## SOCIETIES AND INSTITUTIONS

The membership report for 1938 is reprinted in this issue (originally printed with the Council proceedings in the March 1939 issue) because there were several errors in the headings of the columns, making the whole report confused. Corrections have been made, and the entire report is republished herewith:

### MEMBERSHIP REPORT Indiana State Medical Association December 31, 1938

County Society	No. M.D.s in *County	Mems. Dec. 31 1938	Mems. Dec. 31 1937	Loss— Gain	Elig. Non-Mems.	New Members	Removed and Retired	Deceased	Ineligible
<b>First District</b>									
Posey .....	22	13	13	..	4	..	3	1	2
Vanderburgh ..	180	130	124	6	30	11	19	2	4
Warriek .....	19	13	6	7	3	4	3	1	..
Spencer .....	19	12	12	..	4	..	4	..	1
Perry .....	15	11	11	..	3	..	1	..	..
*Gibson .....	33	26	27	-1	3	1	5	..	1
Pike .....	12	7	8	-1	4	..	..	..	1
Total .....	300	212	201	11	51	16	35	4	9
<b>Second District</b>									
Knox .....	62	38	39	-1	12	2	9	3	4
Daviess-Martin ..	31	24	24	..	7	1	..	..	..
Sullivan .....	27	22	21	1	1	1	3	..	1
Greene .....	23	16	16	..	7	1	..	..	..
Owen .....	12	8	7	1	4	..	..	..	..
*Monroe .....	41	36	35	1	2	3	1	2	1
Total .....	196	144	142	2	33	8	13	5	6
<b>Third District</b>									
Lawrence .....	30	21	22	-1	2	1	9	1	..
Orange .....	18	15	16	-1	..	1	2	..	1
Crawford .....	10	4	3	1	5	1	..	1	..
Washington ..	11	7	7	..	2	..	1	..	1
Scott .....	7	5	3	2	..	2	2	..	..
Clark .....	27	14	15	-1	12	..	1	1	..
Floyd .....	42	36	36	..	2	1	1	3	3
Harrison .....	11	7	8	-1	4	..	..	..	..
Dubois .....	25	20	19	1	4	2	1	1	..
Total .....	181	129	129	..	31	8	17	7	5
<b>Fourth District</b>									
Brown .....	4	..	..	..	1	..	..	..	3
*Bartholomew ..	34	28	28	..	2	..	1	1	3
Decatur .....	23	18	20	-2	2	2	3	1	..
Jackson .....	23	19	16	3	1	2	2	..	1
*Jennings .....	10	7	7	..	2	..	2	..	..
Ripley .....	20	13	11	2	3	1	4	1	..
Jefferson .....	27	17	20	-3	5	..	5	..	..
Switzerland ...	6	5	6	-1	1	..	..	..	..
Dearborn-Ohio ..	31	20	18	2	2	3	5	1	5
Total .....	178	127	126	1	19	8	22	4	12
<b>Fifth District</b>									
Parke-Vermillion	38	23	27	-4	11	..	2	1	1
Putnam .....	20	14	15	-1	5	..	..	..	1
*Vigo .....	131	121	116	5	3	5	3	3	5
Clay .....	22	16	15	1	3	..	..	2	1
Total .....	211	174	173	1	22	5	5	6	8

County Society	No. M.D.s in *County	Mems. Dec. 31 1938	Mems. Dec. 31 1937	Loss— Gain	Elig. Non-Mems.	New Members	Removed and Retired	Deceased	Ineligible
<b>Sixth District</b>									
Hancock .....	21	19	18	1	1	..	1	..	..
Henry .....	40	35	35	..	2	1	..	1	3
Wayne-Union ..	86	57	53	4	15	5	5	4	7
Rush .....	22	16	20	-4	4	..	1	..	2
Fayette-Franklin	26	21	21	..	1	..	4	2	2
Shelby .....	31	18	20	-2	6	..	3	4	..
Total .....	226	166	167	-1	29	6	14	11	14
<b>Seventh District</b>									
Hendricks .....	28	16	17	-1	5	1	3	2	3
*Marion .....	802	584	559	25	149	34	42	17	35
Morgan .....	34	19	21	-2	9	2	5	1	..
Johnson .....	22	14	11	3	7	..	1	1	..
Total .....	886	633	608	25	170	37	51	21	38
<b>Eighth District</b>									
Madison .....	95	77	72	5	9	4	7	2	3
*Delaware-Blkford	100	72	73	-1	18	5	5	3	4
Jay .....	25	14	13	1	11	1	..	..	..
Randolph .....	29	23	20	3	4	2	4	1	..
Total .....	249	186	178	8	42	12	16	6	7
<b>Ninth District</b>									
Benton .....	15	13	14	-1	..	..	..	..	2
*Fountain-Warren	28	24	18	6	2	2	1	..	1
*Tippecanoe ...	97	88	90	-2	4	3	9	1	..
*Montgomery ..	47	30	30	..	5	..	9	3	..
Clinton .....	32	22	22	..	4	..	2	2	2
Tipton .....	18	12	11	1	4	..	2	..	..
Boone .....	26	17	15	2	7	1	2	..	1
Hamilton .....	30	17	19	-2	8	..	2	1	2
White .....	16	2	3	-1	14	..	..	..	..
Total .....	309	225	222	3	48	6	27	7	8
<b>Tenth District</b>									
Lake .....	282	226	200	26	46	29	11	2	5
Porter .....	30	23	22	1	6	2	2	..	..
Jasper-Newton ..	27	19	16	3	4	..	7	1	..
Total .....	339	268	238	30	56	31	20	3	5
<b>Eleventh District</b>									
Carroll .....	17	13	16	-3	2	..	2	1	..
Cass .....	53	35	35	..	16	1	3	..	1
Miami .....	35	24	24	..	8	..	1	1	1
Wabash .....	35	31	28	3	1	1	4	1	1
Huntington ...	32	22	20	2	6	2	3	..	2
Howard .....	47	32	33	-1	7	1	5	3	3
Grant .....	79	59	54	5	9	7	7	1	6
Total .....	298	216	210	6	49	12	25	7	14
<b>Twelfth District</b>									
LaGrange .....	12	10	11	-1	2	..	..	1	..
Steuben .....	22	11	9	2	9	2	3	..	..
Noble .....	30	26	26	..	2	2	2	1	1
DeKalb .....	28	21	21	..	2	..	4	..	1
Whitley .....	16	9	9	..	1	..	3	..	3
*Allen .....	212	157	152	5	27	6	12	3	17
Wells .....	24	17	17	..	7	1	..	..	..
*Adams .....	23	19	19	..	1	..	2	..	1
Total .....	367	270	264	6	51	11	26	5	22



County Society	No. M.D.s in *County	Mems. Dec. 31 1938	Mems. Dec. 31 1939	Loss— Gain	Elig. Non-Mems.	New Members	Removed and Retired	Deceased	Ineligible
<b>Thirteenth District</b>									
LaPorte .....	66	52	48	4	10	5	7	1	..
*St. Joseph ...	172	144	141	3	13	5	10	2	10
*Elkhart .....	76	67	65	2	5	2	2	1	2
Starke .....	6	5	5	..	1	..	..	..	..
Pulaski .....	9	4	4	..	4	..	1	..	..
Fulton .....	16	12	13	-1	4	..	..	..	..
Marshall .....	34	26	24	2	5	2	1	..	3
Kosciusko .....	30	23	21	2	2	2	3	1	3
Total .....	409	333	321	12	44	16	24	5	18
<b>Summary by Districts</b>									
1st District ....	300	212	201	11	51	16	35	4	9
2nd District ....	196	144	142	2	33	8	13	5	6
3rd District ....	181	129	129	..	31	8	17	7	5
4th District ....	178	127	126	1	19	8	22	4	12
5th District ....	211	174	173	1	22	5	5	6	8
6th District ....	226	166	167	-1	29	6	14	11	14
7th District ....	886	633	608	25	170	37	51	21	38
8th District ....	249	186	178	8	42	12	16	6	7
9th District ....	309	225	222	3	48	6	27	7	8
10th District ....	339	268	238	30	56	31	20	3	5
11th District ....	298	216	210	6	49	12	25	7	14
12th District ....	367	270	264	6	51	11	26	5	22
13th District ....	409	333	321	12	44	16	24	5	18
Total .....	4149	3083	2979	104	645	176	295	91	166

*\* Physicians are listed in the counties in which they hold membership; not in the counties in which they reside.*

LOCAL SOCIETY REPORTS

OFFICERS OF COUNTY SOCIETIES

New officers of county medical societies for 1939, not previously reported, are:

- DEKALB COUNTY
- President, J. P. Showalter, M.D., Waterloo  
Vice-president, D. M. Hines, M.D., Auburn  
Secretary-treasurer, C. B. Hathaway, M.D., Butler
- HARRISON COUNTY
- President, Carl E. Dillman, M.D., Corydon  
Vice-president, Alfred Mathys, M.D., Mauckport  
Secretary-treasurer, William E. Amy, M.D., Corydon
- JEFFERSON COUNTY
- President, N. A. Kremer, M.D., Madison  
Vice-president, Luther F. Beetem, M.D., Madison  
Secretary-treasurer, O. A. Turner, M.D., Madison
- POSEY COUNTY
- President, Harold E. Ropp, M.D., New Harmony  
Secretary-treasurer, W. E. Jenkinson, M.D., Mt. Vernon

BARTHOLOMEW COUNTY MEDICAL SOCIETY held a dinner meeting, February 28, at Columbus. Attendance numbered twelve.

CASS COUNTY MEDICAL SOCIETY met at the Hotel Barnes, Logansport, February 20, for a dinner meeting. Mr. Albert Stump, of Indianapolis, spoke on "Medical Care of the Indigent."

Guests included the hospital board, county commissioners, county auditor, trustees of all townships in Cass county and of some adjoining counties. Some Carroll and White county physicians also were present. Attendance numbered fifty-six.

DAVIESS-MARTIN COUNTY MEDICAL SOCIETY members held their regular meeting at the hospital at Washington, February 28. Dr. Carl P. Huber, of Indianapolis, spoke on "Toxemias of Pregnancy," and presented films on "Asphyxia Neonatorum." Twelve members were present.

DEARBORN-OHIO COUNTY MEDICAL SOCIETY met at the New Reagan Hotel, Lawrenceburg, on February 23. This was a dinner meeting. Dr. George F. Smith, Lawrenceburg, spoke on "Syphilis." Attendance numbered fourteen.

DECATUR COUNTY MEDICAL SOCIETY met at Greensburg, February 15, to hear Dr. John Dalton, of Indianapolis, speak on "Syphilis." His talk was illustrated with lantern slides. Attendance numbered six.

DELAWARE-BLACKFORD COUNTY MEDICAL SOCIETY held a dinner meeting at Hotel Roberts, Muncie, February 21, at which Dr. O. A. Hall, of Muncie, spoke on "The Newer Methods of the Treatment of Gonorrhea." Attendance numbered thirty-two. At this meeting the Medical and Dental Bureau was given the official sanction of the society.

The hospital rounds at Ball Memorial Hospital as planned for Sunday morning, March 12, were carried out.

ELKHART COUNTY MEDICAL SOCIETY held their regular meeting in the Hotel Elkhart, Elkhart, March 2. Dr. Ferris Smith, of Grand Rapids, Mich., spoke on "Sinus Diseases," and Dr. R. B. Stout, of Elkhart, showed moving pictures on "Utero-Salpingography," a new method of diagnosis of internal disorders by x-ray.

FAYETTE-FRANKLIN COUNTY MEDICAL SOCIETY met at the McFarlan Hotel, Connersville, February 12. Mr. Victor Davidson, of Indianapolis, spoke on "Farm Security Administration." Insurance of families receiving government help was discussed, but action was deferred until the next meeting. Eleven members were present.

FLOYD COUNTY MEDICAL SOCIETY members met in New Albany, March tenth, for a dinner meeting. Dr. John Habermel of New Albany presented a paper on "Early Signs and Symptoms of Cancer." Attendance numbered sixteen.

FORT WAYNE ACADEMY OF MEDICINE AND SURGERY met at the Chamber of Commerce, Fort Wayne, February 14, when Dr. Nelson H. Prentiss,

of Fort Wayne, discussed "Physiotherapy in Rheumatoid Arthritis."

\* \* \*

FORT WAYNE (ALLEN COUNTY) MEDICAL SOCIETY held a meeting, February 21, at the Chamber of Commerce Building, Fort Wayne. Dr. W. W. Duemling, of Fort Wayne, spoke on "Industrial Dermatoses." Attendance numbered thirty.

The regular monthly business meeting was held in the Chamber of Commerce Building, Fort Wayne, February 28. A case report was presented by Dr. A. N. Ferguson, Fort Wayne. Attendance numbered thirty-two. New members elected were Doctors Jessie C. Calvin, George G. Lenk and Arthur J. Roser.

The Fort Wayne Medical Society met in the Chamber of Commerce Building, Fort Wayne, March 7. Dr. Carl P. Huber, of Indianapolis, presented a paper on "The Toxemias of Pregnancy." Two reels of film were shown on "Asphyxia Neonatorum." Attendance numbered fifty.

\* \* \*

FOUNTAIN-WARREN MEDICAL SOCIETY was entertained at a dinner meeting at the Nine Hotel, Hillsboro, March 2, by Dr. E. G. Bounell, of Hillsboro. A representative of the State Board of Health presented a film on "Safe Home Delivery." A general discussion followed. Nineteen members were present.

\* \* \*

GREENE COUNTY MEDICAL SOCIETY held a dinner meeting at the Freeman County Hospital, Linton, February 16. Dr. William N. Wishard, Jr., of Indianapolis, spoke on "Diagnosis and Treatment of Gonorrhea in the Male." Attendance numbered twelve.

\* \* \*

HENDRICKS COUNTY MEDICAL SOCIETY held a dinner meeting at Crawley's Hall, Danville, February 24. Dr. J. H. Warvel, of Indianapolis, spoke on "Pneumonia." Attendance numbered fifteen.

\* \* \*

HENRY COUNTY MEDICAL SOCIETY met at the Henry County Hospital, Newcastle, February 23. This was a dinner meeting. Dr. Andre Crotti, of Columbus, Ohio, performed a thyroidectomy, followed by a talk on disease of the thyroid gland. Attendance numbered twenty-five.

\* \* \*

INDIANAPOLIS (MARION COUNTY) MEDICAL SOCIETY met February 28 at the Indianapolis Athletic Club. Papers were presented by Doctors Murray N. Hadley and Dr. Rollin H. Moser, both of Indianapolis; Doctors Cleon Nafe and J. O. Ritchey led the discussion.

At the March 7 meeting, the speakers were Doctors J. H. Hawk, A. S. Johnson, and Foster Hudson.

On March 14, the following papers were presented: "Ectopic Pregnancy," by Dr. W. P. Moening; "Observations on Reconstructive Surgery in the Female," by Dr. W. E. Gabe; and "Caesar-

ian Operation with Case Reports," by Dr. G. B. Jackson.

At the March 21st meeting of the Indianapolis Medical Society, papers were presented by Dr. F. C. Walker on "Endometriosis," Dr. J. F. Kelly on "Pudendal Block Anesthesia" (case report), Dr. T. B. Noble, Jr., on "Factors Determining the Results of Caesarean Section," and Dr. G. W. Gustafson on "Chorioepithelioma."

\* \* \*

JAY COUNTY MEDICAL SOCIETY met at the Country Club at Portland, March 3. This was a dinner meeting. Dr. Ernest Rupel, of Indianapolis, spoke on "Constitutional Symptoms of Obscure Urinary Tract Origin."

\* \* \*

KNOX COUNTY MEDICAL SOCIETY held a meeting at Hillcrest Tuberculosis Hospital, Vincennes, March fourteenth. Dr. Russell E. Henry, of Indianapolis, talked on "Early Diagnosis and Common Aids in Diagnosing Pulmonary Tuberculosis." Patients were presented for demonstration. Attendance numbered sixteen.

\* \* \*

LA PORTE COUNTY MEDICAL SOCIETY held a dinner meeting, February 16, at the American Restaurant, LaPorte. Dr. Robert F. McNattin, roentgen therapist of the Cook County Hospital, Chicago, spoke on "Uses of X-ray Therapy in Malignant and Non-Malignant Conditions." His talk was illustrated with slides. Attendance numbered seventeen.

\* \* \*

MADISON COUNTY MEDICAL SOCIETY met at St. John's Hospital, Anderson, February 20. Dr. Kenneth Kohlstaedt, of Indianapolis, spoke on "Medical Treatment of Biliary Tract Diseases."

\* \* \*

MARSHALL COUNTY MEDICAL SOCIETY held a meeting at Plymouth on February 8, at which Dr. John E. Dalton of Indianapolis spoke on "Syphilis in Pregnancy." Attendance numbered twenty-two.

At the March 8 meeting of the Marshall County Medical Society Dr. F. V. Meriwether and Mr. Victor H. Davidson, of Indianapolis, spoke on the Farm Security Administration Plan. Dr. A. E. Ellison, of South Bend, gave the attitude of the State Association toward such a plan. Attendance numbered twenty-two.

\* \* \*

MIAMI COUNTY MEDICAL SOCIETY met at Dukes Miami County Hospital, Peru, February 24. A motion picture on "Safe Home Delivery" was shown, and preparations were made for the District Meeting. Attendance numbered nineteen.

\* \* \*

MONTGOMERY COUNTY MEDICAL SOCIETY held a meeting at Culver Hospital, Crawfordsville, February 16. Dr. E. Vernon Hahn, Indianapolis, read a paper on "Head Injuries." Twenty-two members were present.



MORGAN COUNTY MEDICAL SOCIETY met at Memorial Hospital, Martinsville, March 8. Dr. F. V. Meriwether and Mr. Victor Davidson, both of Indianapolis, spoke on "Farm Security Administration." The program was definitely accepted and will be voted on next meeting for general adoption. Attendance numbered twenty-one.

\* \* \*

MUNCIE ACADEMY OF MEDICINE met at Hotel Roberts, Muncie, March 14, to hear Dr. Raymond W. McNealy, of Chicago, speak on "Vitamins in Surgery."

\* \* \*

NOBLE COUNTY MEDICAL SOCIETY met at Ligonier, March fourteenth, for noon luncheon and afternoon meeting. Dr. H. L. Murdock of Fort Wayne told of his duties as examiner for the Noble County Tuberculosis Association; Mr. James Simpson told of his work as superintendent of the Noble County Department of Public Welfare; Miss Louise Gilbert described her duties as child welfare worker; Miss Brittie Baker talked of the duties of the county nurse. These speakers told of their work in relation to the county medical society. Attendance numbered twenty.

\* \* \*

PERRY COUNTY MEDICAL SOCIETY held a meeting in the Community Building in Cannelton, February 21. Dr. F. C. Glenn, Tell City, spoke on "Communicable Diseases." Five members were present.

\* \* \*

PUTNAM COUNTY MEDICAL SOCIETY held their regular monthly dinner meeting at the College Inn, Greencastle, March 9. Dr. C. J. Clark, of Indianapolis, spoke on "Treatment of Pneumonia."

\* \* \*

RANDOLPH COUNTY MEDICAL SOCIETY met at Randolph County Hospital in Winchester, February 13. Dr. Byron Nixon, of Farmland, spoke on "Tuberculosis," and Dr. C. E. Martin of Lynn, and Dr. R. B. Engle of Farmland discussed the paper. Attendance numbered fifteen.

\* \* \*

ST. JOSEPH COUNTY MEDICAL SOCIETY held a meeting at the Columbia Club, South Bend, February 28. Dr. L. A. Sandoz, of South Bend, spoke on "Skin Manifestations of Syphilis." Attendance numbered thirty-five. Approval was given the establishment of a psychiatric clinic locally by the state.

The St. Joseph County Medical Society met at the Columbia Club, South Bend, March 8, for a dinner meeting. Dr. Bert I. Beverly, of the Children's Memorial Hospital, Chicago, spoke on "Mal-adjusted Adolescents." This meeting was attended by the lay public, following the dinner. Attendance numbered fifty-five.

\* \* \*

TIPPECANOE COUNTY MEDICAL SOCIETY held a meeting at the Purdue Memorial Union Building, March fourteenth. Dr. Joseph L. Baer, professor of obstetrics, Chicago University, talked on "Prolonged Labor." Attendance numbered fifty. Dr. Carl Huber of Indianapolis led the discussion.

## PROFESSIONAL PROTECTION



### A DOCTOR SAYS:

"Any doctor, without your policy at such reasonable cost, is a very foolish man."

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**MEDICAL PROTECTIVE COMPANY**

OF FORT WAYNE, INDIANA

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## PHYSICIANS CASUALTY ASSOCIATION PHYSICIANS HEALTH ASSOCIATION



HOSPITAL  
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**(50,000 POLICIES IN FORCE)**

Liberal Hospital Expense Coverage for \$10.00 Per Year

\$5,000.00 accidental death	For
\$25.00 weekly indemnity, accident and sickness	<b>\$33.00</b>
	per year

\$10,000.00 accidental death	For
\$50.00 weekly indemnity, accident and sickness	<b>\$66.00</b>
	per year

\$15,000.00 accidental death	For
\$75.00 weekly indemnity, accident and sickness	<b>\$99.00</b>
	per year

*37 years under same management*

**\$1,700,000 INVESTED ASSETS**  
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\$200,000 deposited with State of Nebraska for protection of our members.

*Disability need not be incurred in line of duty—benefits from the beginning day of disability*

*Send for applications, Doctor, to*

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TRI-COUNTY MEDICAL ASSOCIATION held a meeting, February 28, at the Daviess County Hospital, Washington. Dr. Carl P. Huber, director of post-graduate obstetrical education at Indiana University Medical Center, gave an address and showed films. Attendance numbered eleven.

\* \* \*

VANDERBURGH COUNTY MEDICAL SOCIETY members were the guests of Dr. John Hare, superintendent of Evansville State Hospital, at a dinner meeting held at the hospital February 14. Dr. W. C. Strange, of Evansville, presented a paper on "A Review of Schizophrenia," and Dr. Walter Strauss, Evansville, read a paper on "Early Diagnosis of Psychosis." Attendance numbered 70.

\* \* \*

WABASH COUNTY MEDICAL SOCIETY held their monthly meeting at Manchester College, Wabash, March 1. Prof. George Beauchamp, of the college, addressed the society on "Socialized Medicine." The meeting was open to the public.

\* \* \*

WAYNE-UNION COUNTY MEDICAL SOCIETY met at Richmond-Leland Hotel, Richmond, March 9. Dr. Robert A. Lyon, of Cincinnati, addressed the society. His subject was "Nutritional Problems of Children." Attendance numbered twenty.

\* \* \*

WHITLEY COUNTY MEDICAL SOCIETY met March 7 in Columbia City. Dr. Juan Rodriguez, of Fort Wayne, spoke on the use of x-ray in diagnosis.

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The Indiana Legislature has adjourned. Probably the outstanding measures passed are those concerning public health. They include the pure food and drug measure, a marriage law to provide syphilis tests for license applicants, encouraging the medical profession to take tests of expectant mothers to insure their offspring from being victims of congenital syphilis, and appropriations whereby the state may distribute pneumonia serum to the needy.

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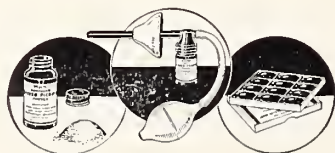
Preliminary program: Visits to private gardens in St. Louis. Luncheon St. Louis Woman's Club. Annual luncheon at the Chase Club. Reception, supper and program; motion pictures, U.S. seal fisheries and fur fashion show. Mississippi River steamboat trip. Annual "Bring Your Husband" Dinner. President's (A.M.A.) reception and ball. Woman's golf round and blind bogey. Make reservation NOW. Mrs. Charles C. Tomlinson, president, urges every doctor's wife in the Hoosier State to come.

(Continued on page xxiv)

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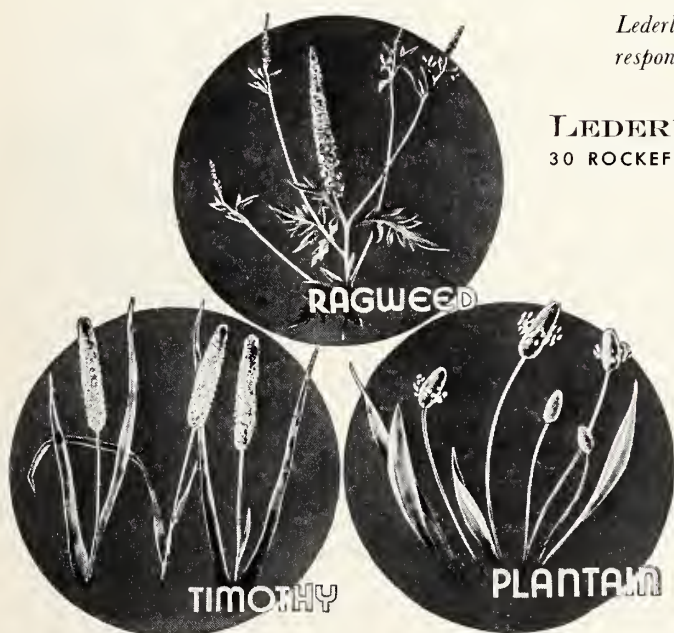
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### Books Worth While

"The Horse and Buggy Doctor," by Dr. Arthur E. Hertzler; "Hatching the American Eagle," by our own Dr. John F. Barnhill; and "Disputed Passage," by Lloyd C. Douglass. "Health Insurance and Medical Care," by Dr. Douglas W. Orr and Mrs. Orr, is recommended as an exhaustive and comprehensive study of medicine in Great Britain.

### Annual Board Meeting

The annual board meeting and luncheon was held at the Columbia Club, Indianapolis, January 20. Nineteen members were present. Dr. Verne K. Harvey spoke on "Medical Legislation." It was unusually informative. Mrs. Ernest O. Nay, state chairman, stressed the theme for the year, "Broadcast Health Education." Four aims: to interpret aims of medical profession to other organizations interested in health education; assist in entertainment at sessions of the Association; encourage friendliness among families of doctors; do work approved by advisory council of A.M.A.

*Legislation.* Mrs. Verne K. Harvey urged a study of bills approved by medical society.

*Organization.* Mrs. John W. Carmack hopes to have an auxiliary organized in Fort Wayne in the near future.

*Parliamentarian.* Mrs. C. F. Voyles asked consent of board to revise by-laws to conform with national by-laws.

*Historian.* Mrs. U. G. Poland requested each auxiliary to have a five year history in to her by March 1, 1939.

*Public Relations.* Mrs. George Dillinger suggested two methods for carrying on this work: (1) Self stock-taking by keeping auxiliary members informed on medical problems of today; (2) The delivery of that knowledge to the public.

*Archives Committee.* Mrs. John T. Wheeler is chairman of this committee, which has been newly created.

*County Presidents' Reports.* The following county presidents gave detailed reports which were very grati-

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Because of the wide range of digestive tolerance possessed by most infants the various types of formulas used routinely are usually tolerated by the majority of infants. But, in any group of infants started on a specific formula, there is always a certain number of "non-conformists." A recent study(1) has rationalized the problem of infant feeding by formula in the following statement:

"More stress has been placed upon the various milks and their properties than on infants and their tolerance. Nutritional research has advanced sufficiently to adapt effectively the required type of milk to the individual infant rather than the infant to the milk."

Thus has been aptly expressed the trend in modern pediatrics towards the use of "individualized" rather than standardized formulas.

Because of many desirable properties such as its uniformity in composition and its physical properties after homogenization and heating—as well as its ready availability and economy—canned evaporated milk has

been successfully used for many years in infant feeding. The value of such milk in some instances where individualized feeding is required has also been clearly indicated(1).

There appears to be no uniform agreement among pediatricians as to the exact time of life when other foods should be added to the milk diet. Nevertheless, it is agreed that early but judicious addition of properly prepared soups, cereals, fruits and vegetables is extremely desirable to increase mineral and vitamin intake and to improve gastrointestinal motility. The psychological value of the early addition of a variety of foods in the formation of proper dietary habits in later childhood is also recognized.

When other foods are to be added to the exclusive milk diet attention might well be directed to the long list of specially prepared canned infant foods. Such foods manufactured by closely controlled procedures from selected raw materials include a full line of soups, cereals, fruits, vegetables, and many food combinations.

The nutritive values of these canned infant foods have been established not only by studies in the laboratory(2), but also by clinical researches(3, 4). Such foods—together with canned evaporated milk—provide reliable, economical and convenient means for formulation of diets for early child or infant feeding.

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(1) 1937. Am. J. Digestive Diseases  
Nutr. 4, 240.

(2)a. 1933 J. Am. Diet. Assn. 9, 295.  
b. 1934. J. Nutrition 8, 449.

(2)c 1936. Ibid. 12, 405.

d. 1936. J. Am. Diet. Assn. 12, 231.

(3) 1932. J. Pediatrics 1, 749.

(4) 1938. Am. J. Diseases Children 55, 1158.

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fying: Mrs. Clay Ball, Muncie; Mrs. P. L. Nelson, Anderson; Mrs. George Bowman, Indianapolis; Mrs. George Dillinger, French Lick; and Mrs. J. E. Freed, Terre Haute. Mrs. Maurice B. Van Cleave presided. Dubois County Auxiliary discontinued to function but the members are to continue as members-at-large.—Mrs. J. W. Baxter, Jr., Corresponding Secy.

**Floyd County.** A program to immunize children against smallpox and diphtheria was put on by the Floyd County Medical Society, assisted by the District Health Department, the Floyd County Medical Auxiliary, the P.T.A., and the Tri Kappa Sorority, which furnished transportation for the children. This was carried on under the general direction of Dr. C. Kenneth Kincaid, of the District Health Department. Under the chairmanship of Mrs. Wm. Howard Garner, the auxiliary members went to the schools of New Albany and out into the county to assist the doctors by sterilizing arms, filling needles, collecting fees, etc. There were 760 immunized for smallpox, 836 for diphtheria, and 157 Schick tests made, totaling 1,753 for the entire county. The program was run on the basis of a nominal fee used for materials and to pay the physicians for their time. (Washington and Scott counties had a similar program. In Washington County there were 1,915; in Scott County there were over 500. Harrison County is considering a similar program.) The Floyd County Auxiliary has had one radio program on their local station WGRC. Mrs. George H. Day presented a very interesting program entitled "A Little Bit is Dangerous." Others will be presented by auxiliary members every three months. The time was given by the Medical Society, which has a fifteen minute period each week.

**Vigo County.** The March Meeting was held at Union Hospital. William Hennessey, clinical psychologist, was speaker. Tea was served in the parlor of the nurse's home. Mrs. J. E. Freed and Mrs. E. T. Zaring poured at a beautifully decorated table.

**Madison County.** Members of the Victoria Guild, an organization sponsored by the Medical Society Auxiliary, gave a benefit dance Wednesday evening, February 8, at the Eagles' ballroom.

**Marion County.** Marion County Auxiliary held a Public Relations Tea in Block's Auditorium Monday, March 13th. Dr. E. O. Asher, of New Augusta, spoke on "Advances in Scientific Control of Disease," and Harold V. Darnell spoke on "Sanitation of Public Eating Places." Guests included state president, Mrs. Van Cleave, of Terre Haute, and Mrs. Fred B. Wishard, of Pendleton. There were 200 present. Mrs. George Bowman presided.

Because of the early date of the Annual Session this year it is hoped that the regular May issue of the *Hoosier News Letter* may be completed and distributed in April. Each member in the state is entitled to a copy. (5c covers mailing.) County presidents please send number wanted and money to Mrs. C. L. Bock, R. R. No. 5, Muncie, Indiana, at once, to prevent delays.

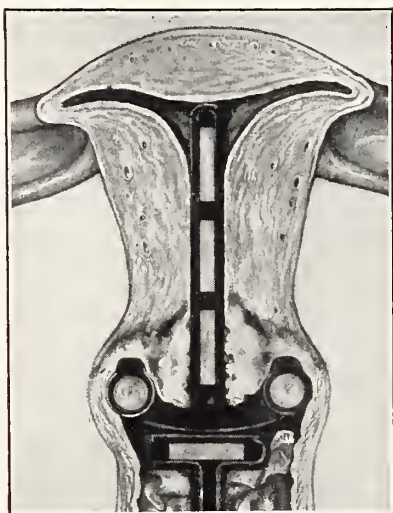
MRS. W. F. HUGHES,  
Press and Publicity Chairman.

## BOOKS

**MEDICINE IN MODERN SOCIETY.** By David Riesman, M.D., Philadelphia, Pa., President of the American Society of Medical History. 215 pages. Cloth. Price \$2.50. Princeton University Press. 1938.

This most recent work from the facile pen of David Riesman, written in his usual charming style, is intended primarily for the layman but may be read by the physician with pleasure and profit. He begins with a splendidly written differentiation between the art and the science of medicine and then takes the reader through the ages, tracing the progress of medicine to

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the present era. The diversity of his discussions is revealed by such chapter headings as "Cancer—The Riddle of the Ages," "Everyman and His Neurosis," "Medicine as a Career," and "Medical Ethics."

Of greatest interest is Riesman's treatment of what he pleases to call "The Social Outlook in Medicine." He introduces this chapter with the statement that "like slavery, like the protective tariff, like prohibition of by-gone days, so in our time the socialization of medicine has become a bitterly fought issue. . . . Those it touches it has split into two snarling camps that are not above somewhat undignified recriminations." He then discusses at length what constitutes good or adequate medical care. He rehearses, as does every writer at present, the age-old statement that only the very rich and the very poor receive satisfactory medical attention, and remarks that the middle classes are in a "pathetic dilemma." The remedial program which he presents includes tax supported hospitals, increased aid from public funds for the fight against certain communicable diseases, adequate medical care for the under-privileged, and a decent living wage for physicians, more particularly those in poor districts and in sparsely settled communities. He also recommends that in certain localities public support be given to diagnostic clinics, laboratories and medical schools.

His discussion includes the various plans that have been proposed by the advocates of socialized medicine, such as group insurance, and believes that "If the medical profession seizes the right moment and takes the leadership in the present crisis, for a crisis it is, such organization as will be adopted to meet the new orientation will be in their own hands. I should like the best minds in the medical and allied professions to get together and formulate a forward-looking plan, before legislators force upon the doctors one which would be injurious to the best interests of the public and the doctors. There is a real danger that this may happen."

The reviewer believes that Doctor Riesman is earnest and sincere in attempting to devise a plan that will be acceptable to the medical profession and to the public.

#### Books Received

**CANCER—ITS DIAGNOSIS AND TREATMENT.** By Max Cutler, M.D., Associate in Surgery, Northwestern University Medical School; Chairman, Scientific Committee, Chicago Tumor Institute; Consultant, Tumor Clinic and Director, Cancer Research, United States Veterans Administration, Hines, Illinois; and Franz Buschke, M.D., Assistant Roentgenologist, Chicago Tumor Institute. Assisted by Simeon T. Cantril, M.D., Director Tumor Institute, Swedish Hospital, Seattle; Late Assistant Chicago Tumor Institute. 757 pages with 346 illustrations. Philadelphia and London. W. B. Saunders Company, 1938. Cloth. \$10.00.

\* \* \*

**MARIHUANA.** By Robert P. Walton, Professor of Pharmacology, School of Medicine, University of Mississippi. 223 pages, 17 illustrations. J. B. Lippincott Co., Philadelphia, 1938. Cloth. Price \$3.00.

\* \* \*

**DISEASES OF THE SKIN.** By George C. Andrews, A.B., M.D., Associate Professor of Dermatology, College of Physicians and Surgeons, Columbia University. Second edition, entirely reset. 899 pages, with 938 illustrations. W. B. Saunders Co., Philadelphia, Pa., 1938. Cloth. Price \$10.00.

\* \* \*

**HOW TO CONQUER CONSTIPATION.** By J. F. Montague, M.D., Editor-in-Chief of Health Digest, Medical Director, New York Intestinal Sanitarium. 244 pages. Cloth. Price \$1.50. J. B. Lippincott Company, Philadelphia, 1938.

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**10 lbs.**

**YOUR**  
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**ADVERTISERS IN THIS ISSUE**

Adams, Arthur (medical books).....	viii	Nestle's, Milk Products, Inc., New York.....	xxvii
American Can Company, New York.....	xxv	Neuronhurst—Fletcher's Sanit., Indianapolis.....	xvii
Bobbs-Merrill, Indianapolis.....	xli	Parke-Davis Company, Detroit.....	v
Buck, Maynard A., Warren, Ohio.....	xvi	Petrolagar Company, Chicago.....	2nd cover
Chicago Tumor Institute.....	xxiv	Philip Morris Company.....	vii
Coca-Cola.....	xl	Physicians' Casualty Assoc., Omaha, Neb.....	xxi
Commercial Announcements.....	xxviii	Physicians' Directory.....	xxx
Cook County Graduate School, Chicago.....	xv	Pitman-Moore Co., Indianapolis.....	xix
Employers Mutuals, Wausau, Wisconsin.....	3rd cover	Plymouth Sanitarium, Plymouth, Ind.....	xviii
Hanger Company, Indianapolis.....	xvi	Pogue School, Wheaton, Ill.....	xvi
Home Lawn Sanitarium, Martinsville.....	xiv	Pure Oil Co.....	xxviii
Hord's Sanitarium, Anchorage, Ky.....	xviii	Radium and Radon Corp., Chicago.....	xvii
Indiana University School of Medicine.....	xxix & xl	Radium Emanation Corp., New York.....	xxvi
Lederle Laboratories, New York.....	xxiii	Rogers Memorial Sanit., Oconomowoc, Wisc.....	xix
Eli Lilly & Company, Indianapolis.....	xx	S.M.A. Corporation, Chicago, Ill.....	ix
Lincoln Hotel, Indianapolis.....	4th cover	Spink-Arms Hotel, Indianapolis.....	xii
Louisville Neuropathic Sanit., Louisville.....	xvi	South Bend Medical Laboratory.....	xvii
Luzier's, Inc., Kansas City, Mo.....	xlii	Sterne Memorial Hospital, Indianapolis.....	xvii
Maples Sanitarium, St. Mary's Ohio.....	xvi	Stokes Hospital, Louisville, Ky.....	xv
McMillen Sanitarium, Columbus, Ohio.....	xviii	St. Vincent's Hospital, Indianapolis.....	xii
Mead Johnson & Co., Evansville.....	iv	Upjohn Company, Kalamazoo, Mich.....	iii
Medical Protective Co., Wheaton, Ill.....	xxi	Waukesha Springs Sanitarium, Waukesha, Wisc.....	xvi
Methodist Hospital, Indianapolis.....	xi	White-Haines Optical Co., Indianapolis.....	xv
Milwaukee Sanit., Wauwatosa, Wisc.....	4th cover	Wilson Milk Company, Indianapolis.....	xiii
National Assoc. Chewing Gum Mfrs.....	xxiv	Wyeth, John, & Bro., Philadelphia.....	xxii
		Zemmer Co., Pittsburgh.....	xxviii

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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

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MAY, 1939

NUMBER 5

### PITFALLS IN THE DIAGNOSIS AND TREATMENT OF CLINICAL ALLERGY\*

BENNETT KRAFT, M.D.

Indianapolis

It is human to seek simple explanations and to develop monoetiologic concepts whenever confronted by baffling problems. The more complex the problem, the simpler is the solution offered by some.

In the last few years lay magazines and the press have brought to the public, our patients, the story of allergy and its dramatic and eye-catching diagnostic procedure, the skin test. Pharmaceutical houses have flooded physicians' offices with literature proclaiming how easy it is to diagnose allergic patients by the simple procedure of skin testing (scratch test). It is small wonder then that in the minds of many, allergy means skin testing and skin testing means scratch testing, whereas, in reality, the skin test is just one of the diagnostic procedures, and the scratch test is the simplest of various skin tests. Like many other medical problems, allergic diseases are a matter of complex interplay of multiple etiology, and it is this interplay which will form the basis of the following discussion.

The basic pathological physiology of the allergic reaction is an increased permeability of the capillaries with ensuing edema and spasm of smooth muscle. The discussion of any disease in which capillary permeability and smooth muscle spasm play an important role would be incomplete without mention, at least, of the autonomic nervous system and the weather.

The autonomic nervous system maintains the constancy of the fluid environment of the body cells through its action upon the circulatory, respiratory, excretory, and glandular organs.<sup>1</sup> Its effects are mediated through chemical substances liberated at the nerve terminals. Acetylcholine is liberated at the endings of the parasymp-

athetic fibers and at the terminations of both parasympathetic and sympathetic vasodilatory nerves. The action of acetylcholine is similar to that of histamine, both being vasodilator substances. Since parasympathetic effects are localized in character, they can produce symptom complexes simulating or reinforcing the allergic reactions, thus complicating the problem.

Petersen<sup>2</sup> who has studied the influence of weather on healthy and sick people rather extensively, demonstrated that similar biologic reactions occurred in all he observed. The type of reaction was conditioned by the individual's constitution and the degree of instability of the autonomic nervous system. Persons with a disturbance of the autonomic nervous system showed greater variations from normal than persons whose vegetative systems were stable. When the meteorogram was correlated with clinical symptoms it was found that when the temperature dropped and the barometric pressure rose, the most striking phenomenon was vascular spasm while when the temperature rose and the barometric pressure fell, the functional response of the body was exactly the opposite—vasodilatation. Countless physiologic variations occurred between these extremes of reactivity. According to Petersen, the constitution of the individual changes with the season, and the reaction to disease-producing factors changes from day to day and from season to season. "When doors and bureau drawers stick, when furniture warps, or splits, when concrete roads buckle, when our desk paper adheres because of an electric charge, when moisture collects on the water glass we observe the environmental temperature or electrical or moisture changes and we take this for granted but never nowadays do we associate the possibility that human tissues, too, may reflect these changes. Yet if

\* Presented before the Marion County Medical Society, Feb. 7, 1939.

<sup>1</sup> Best, C. H.—Taylor, N. B. *The Physiological Basis of Medical Practice*, William Wood & Co., 1937.

<sup>2</sup> Petersen, W. F.: *The Patient and the Weather*, Vol. I, Book I, Edwards Bros., Inc., Ann Arbor.

there ever was an organism constructed to act as a resonator of cosmic events, it is the human body."

Allergy may be defined as hyperimmunity, a hyperfunction of a normal physiologic activity. According to Kahn<sup>3</sup> this hyperactivity of the immunologic function of man as expressed by allergic manifestations is due at least in part to the overstimulation of this function resulting from our mode of life under civilized conditions. It is known that over-stimulation of physiological functions often leads to hyperactivity. It is not surprising then that the skin and the mucous membrane, tissues that under normal conditions carry a great burden of defense, are most commonly affected in allergic individuals.

Sometimes an allergic reaction is one of the ways in which emotional tension may find discharge—like having a good cry. Some people at times experience emotion consciously as well as through some physiological function—like feeling embarrassment and blushing at the same time. What physiological function is thrown out of gear depends upon organic peculiarities, or upon the psychological significance of the function.

With the definition of allergy as hyperimmunity and the part played by the autonomic nervous system and the weather in mind, it is apparent that the diagnosis of an allergic patient requires more than a few scratch tests. It is of primary importance to keep in mind that not everything that sneezes, wheezes, or scratches is allergy. Some patients have sneezing spells, coryza, or blocking of the nose during menstruation, menopause, thyrotoxicosis, barometric changes, and focal infections. The nasal mucosa varies in volume normally under the influence of temperature reflexes, whether local or distant, internal or external. These normal and abnormal variations of the nasal mucosa are felt more by the owner of a small nose and may be more excessive in the presence of spurs, deviated septum, or other anatomical abnormalities. Physical agents such as gas, smoke, or chemical irritants may produce nasal symptoms suggesting allergy, or may aggravate an allergic nose. Many patients suffer from chronic nasal obstruction and discharge during the winter time because they breathe dry unhumidified air indoors for prolonged periods of time. However, it must never be forgotten that two or more conditions may be at work at the same time.

The presence of eosinophiles in the nasal discharge is very suggestive of an allergic rhinitis, but does not definitely diagnose it. Parasitic disease, the administration of digitalis and other glucosides can produce nasal eosinophilia. On the other hand, the absence of eosinophiles in the nasal discharge does not exclude the diagnosis of allergic rhinitis.

The bronchial machinery is constantly adapting itself to weather changes, dust, infections and

physical demands. The threshold of such physiological reactivity may be modified by local causes, such as chronic infections or scars which may induce hyperirritable states of reactivity. A normal physiological stimulus may then set up an abnormal symptom.

In many cases asthma is not primarily a bronchial disease, but merely a symptomatic manifestation of a respiratory dysfunction. Other types of bronchial and pulmonary disease may produce obstruction of the smaller bronchi. Pathologically this obstruction is of a very different type in that the effect upon the bronchus is rather that of an infection constricting the bronchial lumen by infiltration of the bronchial wall than an occlusion of the lumen of the bronchus by mucous plugs.

Dyspnea on effort or at rest and paroxysmal dyspnea are symptoms that are common to both heart disease and asthma. Some patients have both. It therefore becomes very important at times to ascertain how much of the respiratory distress is circulatory and how much is bronchial in origin. Paroxysmal nocturnal dyspnea often occurs in hypertensive, luetic, or coronary artery heart disease. When the hemoglobin content of the blood is sufficiently reduced, dyspnea (especially on effort) can develop because of diminished oxygen carrying power of the blood due to reduced hemoglobin content of the blood.

In infancy, asthma usually occurs in the form of asthmatic bronchitis. The attacks in infants are generally more severe than in adults, and are often associated with a greater or less degree of shock. They are accompanied by lesions of the skin and vomiting and diarrhea may be present as well as elevation of temperature. In children, enlargement of the tracheo-bronchial lymph glands, as a result of tuberculosis or other infection, may cause dyspnea simulating asthma. The possibility of acute tracheo-bronchitis as a cause of dyspnea should always be considered in infants and children.

The following conditions may be mistaken for asthma or may be coexistent with it:

- Acute and chronic bronchitis.
- Bronchiectasis.
- Tuberculosis.
- Syphilis.
- Foreign body.
- Neoplasm.
- Pulmonary emphysema.
- Luetic heart disease.
- Coronary heart disease.
- Hypertensive heart disease.
- Rheumatic heart disease.
- Substernal enlargement or carcinoma of the thyroid gland.
- Enlargement of the thymus.
- Aneurysm of the thoracic aorta or other vessel.
- Tuberculous trachea—bronchial nodes.
- Pneumoconiosis with fibrosis.
- Fungous infection with fibrosis.

<sup>3</sup> Kahn, R. L.: *Tissue Immunity*, Charles Thomas, 1936.



Functional air hunger.  
Hysterical polypnea.

Almost every case of asthma has its psychological element. This is especially true of children. The allergic child patterns his own reactions after the disordered emotional behavior he sees in his allergic parents. To be sure, the onset of asthma is primarily caused by the allergic factor, and the psychic factor is activated or intensified by the allergic state. Repeated bronchospasm and the memory of previous attacks soon establish a conditioned reflex capable in itself of bringing on an attack. Once established as a conditioned reflex, the potential catalysts, somatic or psychic, become numerous. "Every time the nerve stimuli traverse a given path they facilitate the passage of later impulses."

Our present consideration of the skin is confined to the eruptions of the urticarial, erythematous, and eczematous types. There is an intimate relationship between the skin and the temperament of an individual. Such expressions as "the pallor of fear," "the flush of excitement," "the sweat of anxiety," "the glow of content" and "the itch of desire" indicate the temperamental significance of the skin. The dermatological neurosis in which the skin manifestations are nothing more than the explosion point of nervous mental exhaustion or perverted fatigue must always be kept in mind in the diagnosis of allergic dermatosis. To say that a patient has eczema and to give him a few x-ray treatments, and to tell him to abstain from egg and milk is not to have fulfilled our obligation to the patient.

Eczema is a reaction form and not a disease entity. The condition before us might be atopic dermatitis (neurodermatitis), seborrheic dermatitis, an eczematoid fungous infection or contact dermatitis. Again the patient might have any two conditions active at the same time. The differential diagnosis cannot be made by a skin test and in order to help the patient each condition has to be treated differently. All patients complaining of generalized itching should have a complete examination and blood counts with special reference to relative or absolute lymphocytosis, since leukemia, lymphosarcoma, and Hodgkin's disease may have itching as the only symptom for many months.

To most people, hives suggest some food idiosyncrasy. In reality, the hives may be caused by poisons of insects and plants, by heat, light, cold, and mechanical irritation; by drugs, menstruation, animal parasites, and infections. Chronic hives are rarely caused by foods, but more frequently by infection.

Certain dermatoses such as lichen urticatus and erythema multiforme may simulate urticaria at the onset but the location on the extremities and the persistence of lesions for days will distinguish them without difficulty.

The presence of photodynamic substances in the

tissue may cause certain skin eruptions following exposure to light. Some drugs have the property of sensitizing the skin to day-light. Light sensitivity may also be produced by the external application of drugs or chemicals to the skin. The photosensitizing action of coal tar is well known. In drug eruption the cause can rarely be ascertained from the appearance of the cutaneous reaction. The same drug will produce an erythematous or urticarial eruption in one patient and an eczematous eruption in another. In some instances it may be erythematous or urticarial in certain areas of the skin and in other places of the same patient it may assume an eczematous appearance.

Rather difficult to handle are the dermatids which must be differentiated from the original dermatitis which they follow. Dermatids occur most commonly in cases of chronic dermatitis. The broken down cells in the original area are absorbed and carried by the blood stream to distant parts of the body, producing a secondary eruption.

An effort has been made in this paper to demonstrate the complexity of the problem of some of the allergic diseases, not for the purpose of discouraging the use of skin testing, but to plead for its judicial use.

In order for the skin test to be of any value all the various methods may have to be used before a patient can be considered as having been tested—that is, scratch, intradermal, passive transfer and patch tests.

First, we must realize that all a positive skin test means is that the skin is sensitive to that particular allergen. It does not prove that the patient is clinically sensitive to the allergen. Vice versa, negative reactions merely indicate that the skin of the individual is not reactive to that particular allergen, but not that the patient's symptoms are not due to it.

Second, we must keep in mind that, as a group, skin tests for foods are less reliable than for pollen and other inhalants; also that negative skin tests are more likely to occur in angioneurotic edema, urticaria, and gastro-intestinal allergy. Negative skin tests are also usually found in the very early and far advanced stages of allergic diseases, during acute infection, and during a refractory period.

Third, we must realize that skin tests cannot be standardized in terms of the size of the wheal, or of the erythema. Consideration must be given to the nature of the extract used, the sensitivity of the individual patients's skin and the possible irritating properties of certain preparations.

Quite often skin tests must be supplemented by environmental tests and trial diets. The former is of great help in many cases where skin tests fail. If removal from an environment produces improvement or disappearance of symptoms, the search can be confined to a definite location.

Trial diets if used should be based on data derived from the study of the specific patient under treatment rather than on the routine textbook elimination diet. Diet trial requires weeks and at times months of careful supervision and co-operation. It is essential that no proprietary foods should be used during the time of diet study, since their use complicates the investigation.

If the food addition method is used, plenty of time must be allowed between added foods. Food allergens are not eliminated from the sensitized cells and symptoms are not lost in many patients until the causative foods have been out of the diet from seven to fourteen days or longer. Also, the effect of some foods is cumulative and appears only after their inclusion in the diet for days.

It has been stated many times that the chain is no stronger than its weakest link. This statement applies very well to the problem of the physician dealing with allergic problems. More important than skin testing is the ability to apply the information gained by them. Even positive skin tests are of no value unless we are able to discover

the source of contact. For instance, of what use is a positive skin test for goat hair unless we know that it is used in the manufacture of furniture plushes, automobile cushions, the seats of railway cars, curtain materials, blankets, rugs, and as a stuffing for pillows, cushions, and mattresses? Of what use is a positive skin test to rabbit hair unless we know that rabbit skins are used for fur coats, that undyed they give the appearance of white fox, that dyed they can be made to resemble black, blue, or red fox and lynx? Furs from dried rabbit skins are manufactured into felts; rabbit hair is employed as stuffing material for cushions, mattresses, pillows, and quilts; toy animals are often made of rabbit skins.

One could go on ad infinitum enumerating the many possibilities of contact with the various allergens, but the two examples as well as the other points brought out in this paper will suffice to bring out the point that there is more to the practice of allergy than skin testing.

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## PROPHYLACTIC PROGRAM FOR TREATMENT OF ALLERGIC DISEASES

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Twenty-five percent of the white population has some form of hypersensitivity. This was a recent conservative estimate.<sup>1</sup> One-fourth of the babies born in the United States are potentially allergic and suffer from a condition whose cause is still unknown.

Because their etiology is obscure, atopic eczema, hay fever, and asthma have been treated symptomatically; their prophylactic management has been neglected. Remove the offending food if possible and treat the skin eruption with topical applications; send your hay fever sufferer to northern Michigan or hyposensitize him with ragweed pollen extract; give the asthmatic a dose of adrenalin and get rid of his dog: thus we have treated symptoms due to a common constitutional deficiency, a deficiency which may begin in infancy or childhood with one manifestation of allergy and handicap the individual in adult life with an entirely different form of it. Prophylactic treatment should embrace a lifetime and be a planned program to prevent all forms of hypersensitivity from developing. Impossible? Perhaps, but still worth trying.

The following prophylactic program is suggested for any child born of allergic parents or any one who may have or has had symptoms of allergic origin.

**Intra-Uterine:** Since sensitization to foods may occur in utero, the allergic mother should avoid:

Eating excessively of any food, particularly if not consumed regularly.

All articles of diet to which she knows she reacts.

Eat moderately of common sensitizing foods and of raw foods.

**Extra-Uterine:** Prophylaxis to Ingestants.

*Milk:*

The infant should be kept on breast milk if possible. Begin hyposensitization with condensed or dried milk within the first week of life. Start with five drops and increase by five drops daily. Boiled milk may be substituted later after the infant is found tolerant to processed preparations. No unboiled milk in the first year of life.

*Wheat, eggs, cottonseed oil and orange juice:*

Begin with one teaspoonful in two quarts of water. Give one teaspoonful of this mixture every day for four days. Gradually increase these dilute mixtures. These foods should be started during the first month.

*Other foods:*

Add new foods to diet cautiously.

Do not give any new food oftener than every five days.

Never add more than one new food at a time.

<sup>1</sup> Kern, Richard A.: *Annals of Internal Medicine*, Volume 12, No. 9, p. 1178.



Avoid forcing disliked foods.  
 Avoid overeating of any one food.  
 Avoid raw foods.  
 Avoid forcing any food in presence of infection or gastro-intestinal upset.  
 Avoid forcing any food to increase weight. (At any age.)  
 Watch for reactions to any foods. Eliminate them from diet when found.

#### **Inhalation:**

##### *House:*

Home should be heated with steam or hot water.  
 If hot air is used filters should be provided and changed frequently.  
 House should be kept dry when furnace is not in use.  
 Air conditioning is ideal.

##### *Bedroom and Nursery:*

Cover pillows and mattress with impervious materials.  
 Throw rugs, no thick carpets.  
 Painted walls or smooth paper.  
 Avoid use of silk and virgin wool in nursery.  
 No overstuffed furniture in bedroom.

##### *Furniture:*

Discard all old furniture, particularly if overstuffed.  
 Watch for reactions to new equipment.

##### *Sensitizing Dusts:*

Avoid use of fly spray, deodorants and insect powders containing pyrethrum.

##### *Cosmetics:*

All members of the family should avoid use of cosmetics and toilet preparations containing orris root.

##### *Animals:*

Animals tabooed.  
 Fuzzy toys tabooed.

##### *Pollen:*

Avoid automobile trips during pollenating season. Vacation trips might well be taken

in winter time when the pollen concentration is low. Many cases of hay fever can be traced to an automobile trip during the pollenating season.

Change of climate for those highly sensitive to ragweed pollen.

There is no ragweed west of the Cascade Mountains.

#### **GENERAL CONSIDERATIONS**

##### *Occupation:*

Choose a life work where occupational dusts are not likely to cause reactions. Farmers, beauty operators, millers, elevator operators and bakers are frequently victims of occupational diseases.

##### *Marriage:*

Marry non-allergic mate.

##### *Health Factors:*

Maintain best possible state of health.  
 Immunization to whooping cough within first year of life. Asthma is a frequent sequela of this childhood disease.

Use diphtheria toxoid and avoid horse serum sensitization.

Use tetanus toxoid and prevent the need for antitoxin.

Operations of choice on the nose and throat should be done during non-pollenating seasons.

Treat all known allergic manifestations vigorously by avoidance or hyposensitization.

#### **CONCLUSION**

Many people are allergic. Too often symptoms have been treated, the underlying constitutional deficiency forgotten. Since the cause of allergic states is unknown, a lifetime prophylactic program of hyposensitization and avoidance of known sensitizing factors is suggested.

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## **ALLERGY IN RELATION TO ECZEMA**

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Every physician, no matter what his specialty or interests, should familiarize himself with the principles of allergy, because the subject is assuming an increasing proportion of the field of medicine. Basic in this understanding is a concept of the term "allergy," as it is used in explanation of the variety of symptoms and signs which arise, depending on the location of the reaction. Von Pirquet and Schick introduced the term in 1906 to mean a change occurring in an organism after contact with a living or inanimate organic "poi-

son" and manifesting itself in an altered reaction to a second application of the same or closely related substance. This conception in its broadest application will encompass an almost limitless host of the phenomena in everyday medicine, but this discussion will be limited to allergy in relation to eczema.

The term "eczema," which has been loosely used to designate a large number of dermatoses characterized by erythema, scaling, weeping, itching, and thickening of the skin, associated with the

DIFFERENTIAL CHARACTERISTICS OF COMMON ALLERGIC DERMATOSES<sup>1</sup>

Contact Dermatitis	Atopic Dermatitis	Drug Eruptions	Fungus Dermatitis — Eczematous Dermatophytids
1. Epidermis is "shock tissue" and practically always only tissue affected.	Blood vessels in cutis "shock tissue." Capillary permeability and smooth muscle spasm.	Deep cutis, cutis epidermis and follicles are "shock tissue."	Upper cutis, cutis.
2. Rarely a family history of asthma, hay fever, atopic dermatitis. If these are present, it is coincidental.	Family history of asthma, hay fever, and perhaps migraine or urticaria.	Same as contact dermatitis.	
3. Lack of personal history of (2).	Personal history often reveals some of those under (2).	Same as contact dermatitis.	
4. Eosinophilia rarely demonstrable.	Eosinophilia in blood smears.	Eosinophilia in blood smears.	
5. Scratch and intracutaneous skin tests—negative.	Scratch and intradermat tests—positive.	In rare urticarial eruptions the scratch or intracutaneous tests are positive.	Intracutaneous or patch test.
6. Passive transfer—negative.	Passive transfer—positive.	Same as contact dermatitis.	
7. Relief on removal of offending substances.	Same.	Same.	May be desensitized by fungous extracts.
8. Recurrence or exacerbation on exposure.	Same.	Same.	Recurrence on reinfection.
9. Identification of offending substances by reproduction of eczematous reaction to patch tests. Reaction time, twenty-four or more hours.	Offending substances cannot be identified by patch tests. Reaction time five to thirty minutes.	Patch tests usually reproduce the eczematous reaction in eczematous drug eruptions (identical with contact dermatitis) but rarely reproduces the morphe of the dermatosis in acneform or vegetating drug eruptions (Dermatitis Medicamentosa.) Reaction time, one minute to days.	Intracutaneous or patch test is specific but not diagnostic.
10. Presence of purely epidermal lesions—erythema, edema, vesicles (to bullae) papules, histologic spongiosis.	Presence of capillary permeability. Papules, lichenification and oozing. Vesiculation absent.	Lesions often characteristic for offending drug. Bromides and iodine cause acneform, vegetating or nodular-like and erythema-like eruptions. Phenolphthalein, antipyrine, amidopyrine, etc., produce fixed drug eruptions.	Vesiculation usually in upper cutis and cutis. Larger than those of contact dermatitis. Frequently the two are indistinguishable.
11. Causal substances are allergens but not antigens or atopens—rarely protein but are chemicals, metallic salts, anesthetics, dyes, etc., or plantoils or products of fungi and bacteria.	Causal substances are atopens or reagins or antigens but not precipitins. Usually foods, inhalants (powders, dusts, animal emanations, spores of fungi, plant pollens, etc.). Clothing (silk, wool and fur, etc.).	Allergens but not atopens or antigens.	Allergens—fungous products (hypomycetes and molds.)

production of vesicles and papules, has undergone some clarification through the years. This was brought about by an increased knowledge of the morphologic characteristics and histopathologic changes of cutaneous lesions, so that the broad concept of the term has become more and more restricted, as new dermatoses have been identified and removed from this large group. Dissimilar eruptions still occupy a place in this group, because they are the cutaneous manifestations of

different types of hypersensitiveness, in an individual whose biologic reaction to environmental conditions and activities is different than that of a normal person. This predisposition to become sensitive to various substances may be acquired or hereditary.

There are four types of cutaneous allergy: (1) Contact dermatitis; (2) atopic dermatitis; (3) dermatoses due to bacterial and mycotic allergy; and (4) certain eruptions caused by drugs. Contact dermatitis and atopic dermatitis comprise the groups of cases which the average physician

<sup>1</sup> Curtis, Geo. H.: Contact Dermatitis, *Med. Clin. of North Amer.*, March, 1938, P. 378-379.



calls eczema; however, the dermatologist prefers to limit the meaning of the term eczema and consider it synonymous with contact dermatitis. The table opposite, which is composite of the best thoughts on the subject today, sets forth the differential characteristics of the four types of cutaneous allergy.

Since contact and atopic dermatitis differ both in their clinical manifestations and mechanism of production, it has been suggested by Sulzberger<sup>2</sup> and his co-workers that the term "eczema" be dropped from the nomenclature. However, usage by both the profession and laity over a long period of time will make this difficult. A compromise might be arrived at by limiting the term eczema to designate contact dermatitis in which gross and microscopic exudation and vesiculation is present. For a recitation of the differences between contact and atopic dermatitis, the reader is referred to the table. Suffice it to say that the former may be present at any age (rarely in very young infants), is not influenced by heredity nor associated with other manifestations of allergy and has a much better prognosis. While in atopic dermatitis, the excitants or atopens stimulate an antigen-anti-body reaction, the reaction is located in the corium, and its incidence decreases with each decade in life.

The majority of patients with cutaneous manifestations of allergy belong in the so-called "eczema" group, so this discussion will be limited to contact and atopic dermatitis. Without entering upon a confusing dissertation of the mass of experimental evidence which distinguishes these dermatoses, we will proceed with the practical considerations of diagnosis and treatment.

#### CONTACT DERMATITIS

##### Diagnosis.

Contact dermatitis is characterized by an acutely erythematous and vesicular dermatitis on those cutaneous areas normally exposed and likely to come into contact with external irritants. At first the inflammation is limited to the area of contact, later spreading to other parts of the body. A history of recurrence of the dermatitis on re-exposure, and discovery of the irritating substance by the application of a properly controlled patch test, establishes the diagnosis.

In differential diagnosis, seborrheic dermatitis, lichen planus, lupus erythematosus, erysipelas, pityriasis rosea and impetigo must be considered. When the eruption is limited to the hands and feet, it must be differentiated from disidrosis, dermatophytosis, dermatophytid, yeast infections, resistant vesicular dermatitis of the hands and feet, infectious eczematoid dermatitis, and nummular recurrent eczematoid dermatitis described by Pollitzer. Space does not permit enumeration

of all the points of differential diagnosis of these conditions, and in all events it might be most expedient to seek dermatologic counsel to establish the proper diagnosis.

A careful history is of the utmost importance and greatest practical help in eliciting the cause of the dermatitis. This necessitates a detailed inquiry into the patient's daily routine both in his occupation and while away from it, in order to establish the points set forth in the table. When the list of possible irritants has been made up from the clues suggested in the history, these should be patch tested. The technic of performing patch tests can be found in standard textbooks on dermatology, and their value and shortcomings have been ably set forth by Schwartz.<sup>3</sup> Obviously, primary irritants such as acids and alkalis should not be applied to the skin. A positive test is indicated by the appearance of a patch of papulovesicles at the site of contact of the suspected irritant. A list of irritants and the concentrations to be used in performing the test may be obtained from the Division of Dermatoses Investigation of the U. S. Public Health Service. If the test is negative, it may indicate that the suspected material has not been applied to a sensitized area, the real irritant has been missed, or the same conditions under which the patient's skin has been irritated has not been reproduced in performing the test. The patient may also have developed an immunity by the time the test is done. It is the only test applied to the skin known today which will aid in the identification of substances producing contact dermatitis, yet it is only one link in the diagnosis. The others of equal importance are the history, the evidence of recurrence on exposure with subsidence when the irritant is removed, and the history of involvement of other individuals similarly engaged.

##### Treatment.

The treatment of contact dermatitis divides itself naturally into three parts: First, and most important, the external irritant or irritants must be identified and removed from further contact with the patient or the patient from his environment if this is possible. If this is not possible, suitable protective clothing and the use of protective ointments may solve the problem. Second, wet dressings or soothing lotions are indicated, depending on the acuity of the dermatitis, while investigation into its cause proceeds. Third, desensitization may be tried if the dermatitis is due to plants, house dust, etc., but this procedure is not satisfactory in the case of chemical irritants.

In the acutely erythematous and vesicular stages, the application of aluminum acetate solution, 1:120 to 1:60, as wet packs, relieves the pruritus and prevents secondary pyoderma. After the acute symptoms have subsided, these can be discon-

<sup>2</sup> Sulzberger, M. B., and Rothenberg, Adolph, Jr., *Practical Procedures in the Investigation of Certain Allergic Dermatoses*, *Jour. Allergy*, 6:448-463 (July), 1935.

<sup>3</sup> Schwartz, Louis, *Industrial Dermatoses*, *Jour. Ind. State Med. Assoc.*, 31:8, 379.

tinued in favor of a calamine liniment to counteract excessive drying, and finally, the use of a 5-10 per cent tar ointment to do away with infiltrated, lichenified and scaly areas of dermatitis. Pyoderma is usually quickly controlled with potassium permanganate 1:4,000 solution dressings.

Complete desensitization is rarely possible, but the patient may be brought to a state of relative hypersensitivity or to a state of hyposensitivity. This may be sufficient to prevent a recurrence of the dermatitis under ordinary circumstances, but not sufficient to protect the patient against a massive exposure of the offending irritant. Hyposensitization treatment is best accomplished by intramuscular injection of the extract in oil.

#### ATOPIC DERMATITIS

The fundamental basis of atopic dermatitis is the same at all ages, regardless of the dissimilarity of the clinical appearance of the dermatitis. In fact, as Hill and Sulzberger<sup>4</sup> have pointed out, it would be strange if it were similar. These authors state further that "it makes comparatively little difference what the nomenclature is, provided that one realizes that atopic dermatitis is the same disease in the infant as in the older person, modified by long duration, long continued external trauma, the differences between the skin of the infant and that of the adult and the variations in reaction that these two different skins may show to irritation by the same stimuli."

The term "atopy" was coined by Coca to mean a certain form of hypersensitivity to substances usually protein or closely linked to protein. This type of sensitization is often hereditary, manifesting itself as atopic dermatitis, asthma, hay fever, migraine, or gastro-intestinal disturbances in various members of the family or relationship. Reagins or atopens can usually be demonstrated in the blood, but in sensitivity to metals, drugs, infection and serums, the foregoing does not hold true.

#### Diagnosis.

As in contact dermatitis, a careful history is important, especially to elicit previous attacks of asthma, hay fever, or infantile eczema. A previous history of these definitely places the patient as an atopic individual.

The common sites of predilection of the eruption are the face and neck, upper chest, and flexures of the elbows and knees. During periods of remission the latter areas may alone be involved. The skin is dry, scaly, papular and thickened, with accentuation of the normal lines of cleavage and various degrees of pigmentation, which results from scratching and rubbing. Itching is always a pronounced symptom, is spasmodic in type and aggravated by fatigue or emotional strain. Scratch tests with proteins show a positive reaction to a

large number of substances, while patch tests are usually negative.

#### Treatment.

Treatment may be divided into general and local. Under general treatment, attempts to prevent contact with the atopens of etiologic importance which have been determined by scratch tests or trial diets, and procedures intended to desensitize the patient to offending atopens, would receive consideration. Of equal importance, particularly to the comfort of the patient, is local symptomatic or palliative treatment designed to relieve itching and decrease nervous irritability.

A complete and worthwhile discussion of the category of procedures and their technical details, which comprise the general management of these patients, is not within the scope of this paper. The literature is replete with a discussion of the various approaches, allergic studies and immunologic aspects almost to the point of confusion. The nondermatologic physician who is hard pressed to do something and get results will be more interested in knowing what to use and how to use it, so we will proceed with a discussion of symptomatic or palliative treatment.

Rest, both mental and physical, is of importance to facilitate treatment, and is an aid in controlling itching. In the acute phase of the dermatitis and in the presence of edema and erythema, colloidal baths (equal parts of corn starch and soda) followed by the application of dilute (1:10 to 1:20) aluminum acetate dressings are indicated. Boric acid solution and physiologic saline solution can also be used. In the presence of marked oozing, nitrate of silver  $\frac{1}{8}$ - $\frac{1}{4}$ % solution is very helpful, as is potassium permanganate solution 1-4,000 in the presence of superimposed secondary infection. When the acuity of the process subsides, the dressings can be discontinued in favor of Lassar's paste, with or without salicylic acid, and with naftalan, ichthyol or crude coal tar added in from 3-10 per cent. These adjuvants can be increased in amount as the dermatitis passes to the subacute and chronic stage. In the chronic stage, which is characterized by marked thickening and lichenification of the skin, more stimulating substances, such as oil of cade, oil of birch, resorcin, sulphur, chrysarobin and lenigallol can be incorporated in an ointment or paste in from one-half to fifteen per cent, depending on the tolerance of the patient's skin.

Fractional doses of x-ray, administered by one particularly trained and qualified to handle this modality, are of value in both the subacute and chronic forms. This may prove to be the only satisfactory type of treatment in some cases, but the limit of tolerance of the patient's skin must never be exceeded.

A paragraph by Wise and Sulzberger,<sup>5</sup> ably

<sup>4</sup> Hill, Lewis W., and Sulzberger, M. B., *Evolution of Atopic Dermatitis*, *Arch. of Derm. and Syph.* Sept., 1935, Vol. 32, pp. 451-463.

<sup>5</sup> Wise, Fred, and Sulzberger, M. B., *Year Book of Dermatology and Syphilology*, 1935, P. 17.



summarizes the situation regarding therapy in eczema as follows:

"If you wish to treat eczema, first thoroughly learn the action of a few basic prescriptions; then achieve mastery of the technic of their application and removal. He who does this and then spends the often not inconsiderable time necessary to give

the fullest and most meticulously explicit instructions will achieve results in eczema. He will 'cure' cases which otherwise would defy a multitude of varied and complicated prescriptions, showered upon the patient without adequate knowledge of their properties, without thought as to their exact indication, and without directions as to their proper use."

ALLERGY IN EAR, NOSE AND THROAT PRACTICE

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Hammond

About ten or fifteen years ago an increase in the number of contributions to the literature in ear, nose and throat aiming to establish and clarify such subjects as bio-chemistry, pathology, physiology, immunology and experimental sinus investigation began to appear. The role of allergy in nasal infections began to be appreciated, the possible relationship between infections, allergy and their combination to be analyzed, and the role that each plays in a particular case to be established. The reason for the compilation of the statistical data here shown is to suggest a routine practice to attack the allergic portion.

<b>I. A Review of 3657 Consecutive Cases in an Eye, Ear, Nose and Throat Practice.</b>			
A. Number coming with eye complaints.....	1665	45%	
B. Number coming with ear complaints.....	692	19%	
C. Number coming with throat complaints..	580	16%	
D. Number coming with nasal complaints....	720	20%	
<b>II. A Review of the 720 Nasal Cases Shows:</b>			
A. Allergic nasal cases.....	140	19.4%	
B. Other than allergic nasal cases.....	580	80.6%	
C. The allergic nasal cases are of total cases reviewed .....		3.7%	
<b>III. Review of the Allergic Cases</b>			
A. Showing an eosinophilia			
1. Over 50% .....	26 cases		
2. 10% to 50% .....	34 cases		
B. Showing no eosinophilia (1-10%) but proven allergic .....	28 cases		
C. No smears taken.....	52 cases		
<b>IV. Review of the Allergens to Which These Allergic Nasal Cases Were Skin Sensitive</b>			
A. Inhalants .....	57	40.7%	
B. Foods and Contacts.....	7	5. %	
C. Both Inhalants and Foods and Contacts	76	54.3%	
<b>V. Review of Results.</b>			
A. Satisfactory by allergic management alone (Avoidance and desensitization) .....	67	47 %	
B. Satisfactory by allergic management plus local treatment .....	38	27 %	
C. Satisfactory by allergic management plus surgical management .....	30	21.7%	
D. Failures .....	5	3.5%	

In none of this series of cases were ear or eye symptoms of allergy manifested, and we have considered those cases which had bronchial manifestations as nasal allergies if they had a nasal allergy at the same time.

*To decide whether a given case is allergic.*

The diagnosis depends on a history of sneezing, nasal blocking, frequent mucoid to watery discharge, itching (especially in the morning), and a history of some allergic disturbance in the inheritance of the patient. The mucous membrane of the nose is usually edematous, pale, with or without polyps, and if there is an acute inflammation supplanted on a nose with an allergic background, the paleness is lost but the edematous character of the inflamed mucous membrane frequently gives one the hunch to expect the presence of an allergy. The cytologic study of the nasal secretions gives a very frequent help in determining the analysis of a case. Nasal smears are taken preferably from the area of the middle meatus, stained with Wright's stain, and studied for the presence of eosinophiles. If positive, it is quite conclusive evidence of an allergic factor in the case. However, when an infection is supervened, the secretions are thin and one may find a preponderance of neutrophil cells. In such cases, or when no eosinophiles are found, repeated daily smears will find them. The nasal smears from an allergic nose of the vasomotor-rhinitis type will have a preponderance of eosinophilic cells, and in the presence of an infection these become almost 100 per cent neutrophiles, that is, the eosinophil cells are hard to find. As the infection clears, the neutrophiles drop off and the eosinophiles become easier to find on the slide. It is sometimes necessary to repeat painstakingly nasal smears for many days before discovering eosinophiles in cases of a supplanted infection.

We consider the presence of seven to ten per cent eosinophiles as indicative of an allergy. The nasal secretion eosinophiles come from infiltration of the nasal mucosa. They are present in the asthmatic patient's sputum and in other body secretions when the eyes, intestines, or vagina are the seat of allergic disturbance. They usually indicate inhalant or ingestion allergy when found in the nasal secretion.

In cases of a polyposis if there is an allergic factor present and it can be determined, the certainty of recurrence of polypi is minimized by add-

\* Presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at Indianapolis, October 5, 1938.

ing allergic management to the removal of the polypi. This has been so satisfactory that we frequently and usually make smears and often remove a single polyp for biopsy before removing obstructive nasal polypi.

#### MANAGEMENT

If it is decided that a given case has a nasal allergy and as many clues as possible are gotten from his history, he is then skin-tested by the scratch method and rechecked intradermally. The list of his positives is then gone over and as many as possible are ruled from his environment. In the ones in which this cannot be done an attempt is made to make him hypo-sensitive to the most important ones. Great care must be taken not to give too large doses, and they must be given over a long period of time to render an individual hypo-sensitive. The use of air filters, dust-proof covers on pillows and mattresses, diet lists in which the patient records every mouthful of food variety taken and his symptoms, elimination diets as described by Rowe as a basis for ruling out offending foods, must be taken with increase in diet as indicated.

We have thought that we were helped by leukopenic index studies on the basic foods. The patient comes to the laboratory with twelve hours of fasting, having taken in the preceding twenty-four hours some of the food to which he is to be tested, such as milk, wheat, eggs, and then is given a quantity of this food after a white blood count is taken. Instead of getting an increase in white blood count over the next twenty and forty minutes he gets a leukopenia. This, then, is kept off his diet in spite of any skin-test reaction previously made.

#### ALLERGIC MANAGEMENT PLUS SURGERY

Hansel<sup>1</sup> has recently stated that he found it necessary to do intranasal and sinus operations in only 25 out of 220 cases of nasal allergy. This statistical proportion has not been our experience. It has been necessary to do a great deal more surgery than this figure indicates. However, when we consider that Dr. French Hansel of St. Louis is an authority on nasal allergy and a large percentage of this type of case comes to him, these figures are justifiable. In our own cases analyzed it was necessary to combine surgical management with twenty per cent of them. This includes the cases with a nose full of polyps, with irreversible hypertrophies of long standing with allergy plus sinus infection (particularly hyperplastic ethmoiditis and purulent antra from apical teeth infections), and with large posterior tips on the inferior turbinates. The disappearance of symptoms with the correction of these deformities is greatly increased by adding avoidance of irritating allergins whenever found.

It is a common observation that sometimes allergic manifestations, particularly asthma, develop after nose and throat operations, especially tonsillectomies. These are only the precipitation of potential allergies by breaking down the integrity of the nose and throat mucous membrane. The exact opposite experience is frequently encountered, and we believe that this is due to the removal of the offending factor in a bacterial allergy.

On the use of ionization in nasal allergy we have had only little experience. In a few cases where there was no improvement with hyposensitization and in cases where the symptoms of seasonal allergy were well-advanced at the first examination and there was no time for desensitization, this method of treatment has been tried and has been satisfactory in about 50 per cent of the cases. In few more than a dozen cases over a three-year period we have not encountered the destructive and erosive atrophic changes that are spoken about by many authors. Nearly all of these seasonal cases are relieved for the season, and we have attempted to give them hyposensitization the following year, so that in none of them has an ionization been repeated the second year. Two biopsies of these turbinates were made and they showed a loss of ciliated epithelium and an increase in the fibrosis of the basal layers.

Applications of trichloroacetic acid to the hypertrophies of the inferior turbinate are frequently made and the "tightening-up" of the mucous membranes has given a fair percentage of temporary relief. These escharotic processes decrease the absorptive power of the mucous membrane and in inhalant cases relieve the symptoms greatly, at least temporarily. We have never had the obstructive symptoms of acute sinusitis follow these cauterizations.

#### MEDICAL TREATMENT

For the control of local symptoms medically, the shrinking of the nasal mucous membrane and the use of ointment, containing a combination of ephedrin and cocaine, produce a good deal of symptomatic relief. The intravenous injections of calcium gluconate and sodium iodide frequently repeated, and the giving of ephedrin or propodrin will quiet the acute symptoms temporarily, at least to give one time to work out the etiological factors.

Ramirez<sup>2</sup> states, "Just one word about the importance of endocrine glands and of vitamins in bacterial asthma and allergy. These are phases which one hesitates to discuss because of the present lack of knowledge. I believe that there is a definite relation of endocrine dysfunction and vitamin deficiency not only to asthma but to allergy in general. I do not think any one gland or deficiency of any one vitamin is solely responsible. Any gland or combination of glands can be

<sup>1</sup> Hansel, F. K.: *Allergy of the Nose and Paranasal Sinuses; a Monograph on the subject of Allergy as Related to Otolaryngology*, St. Louis, C. V. Mosby Company, 1936.

<sup>2</sup> Ramirez, Maximillian A.: *Bronchial Asthma and Nasal Allergy*, *Arch. Otolaryn.*, August, 1938.



an important factor affecting the underlying fundamental mechanism of hypersensitiveness. I believe that this phase of allergy indirectly may involve a strong hereditary influence and determine the shock tissue."

In allergic noses in which no allergen can be found, if the patient is proved to have a low basal metabolic rate, small doses of thyroid have relieved the nasal symptoms completely. It is our opinion that a very close liason between the otolaryngologist and the allergist is desirable and that it is very important that a careful evaluation of the nasal changes be observed during any allergic treatment.

#### CONCLUSIONS

1. The frequency of allergy as a complicating factor in an oto-rhinolaryngologist's office practice should be appreciated.
2. If allergy is suspected, eosinophilic study of nasal secretions should be made.
3. Allergic investigation and management is an important therapeutic adjunct to surgical and medical management.
4. Conclusive proof of the allergic background of any individual case can only be established by painstaking investigation and therapeutic trial.

5231 HOHMAN AVENUE.

#### DISCUSSION

E. L. VANBUSKIRK, M.D. (Lafayette): I wish to congratulate the essayist on his very fine paper and re-emphasize his plea to be conservative in the management of allergic rhinitis. With proper medical management, symptoms will disappear and surgery to relieve the nasal obstruction or an associated sinus infection will no longer be necessary.

In the non-allergic type of hyper-esthetic rhinitis, chemical cauterization of the turbinates, zinc ionization and nasal surgery will be found helpful.

The treatment of the pollen allergy, either prophylactic or specific, is chiefly by pollen desensitization.

In bacterial allergic rhinitis, the removal of the focus of infection and treatment with an autogenous vaccine will often improve or eliminate the condition.

KENNETH L. CRAFT, M.D. (Indianapolis): I wish to thank Dr. Kuhn for so ably presenting this important and interesting subject. We could talk all day long upon allergy and hit only the high points. The subject is of particular interest to rhinologists since the great majority of allergic symptoms are referred to the upper respiratory tract. Of course, many allergic reactions occur in other parts of the body, but it is in the nose, particularly, that most allergic conditions are manifested.

As Dr. Kuhn has shown by his interesting and

instructive charts, a certain definite percentage of all patients who consult the rhinologist suffer from pathology which is allergic in its background. Occasionally the symptoms are so typical and prominent that the diagnosis is relatively easy. Other cases vary greatly in their symptoms and it is very hard to diagnose and treat them properly unless we use all the measures at our command. A particular point in diagnosis, and one outstanding feature between allergic and non-allergic nasal conditions, is the eosinophilic reaction. It is very simple to take a smear from the nose and search for these pathognomonic cells. Sometimes they are not present in the first smears and one must make several examinations, but in making a differential diagnosis in nasal pathology one can usually distinguish between allergic and non-allergic conditions by this test. If infection exists, the predominating cells will be neutrophils; in allergic conditions they will be eosinophiles. This is the one prominent point of differentiation between allergy and infection in nasal conditions.

The seasonal cases are relatively easy to detect, diagnose and treat. There is no question but that desensitization against wind-borne pollens and molds is the best treatment for these seasonal attacks, and good results may be obtained in the great majority of these seasonal cases. However, a case of vasomotor rhinitis or perennial hay fever continuing throughout the year, regardless of seasonal influence, often is a more difficult thing to relieve. We cannot always find the allergic background in this condition but, in my opinion, it is present in practically every case although, as said before, the exact cause is not always easy to identify, even by repeated tests covering the whole gamut of protein sensitizations. However, we still can do a great deal in a non-specific way toward relieving those borderline cases in which the exact allergic cause cannot be found. Many of them react well to local treatment in the nose. Dr. Kuhn mentioned the use of trichloroacetic acid in this connection and I have found it a very valuable aid in relieving the symptoms of these stuffy, watery, sneezy noses which give so much discomfort to these patients. Very frequently a few applications of trichloroacetic acid to the hypersensitive nasal membranes will relieve the condition for a considerable length of time varying from a few weeks to several months or longer. Even though it may be necessary to repeat the treatment within a relatively short time, patients suffering from this distressing condition usually are very grateful for any relief afforded by such a simple measure.

Zinc ionization has been used rather extensively in the treatment of both seasonal and perennial types of nasal allergy although it has proven much more beneficial in the perennial type of case. However, the reaction to this treatment is so severe that few patients will consent to having it repeated. I have often wondered why nasal ioniza-

tion could not be given in a milder form with shorter exposure and lighter dosage, in which form this treatment might be repeated as often as necessary without the severe reaction which now seems to condemn its use.

A word in regard to intranasal surgery upon the patient suffering from hay fever or other nasal allergy. Many physicians feel that the mere presence of nasal allergy should, in itself, contraindicate any type of nasal operation. This attitude probably has arisen from the fact that in the past many hay fever and nasal allergic patients have been subjected to unnecessary and ill-advised nasal surgery in the hope that the allergic condition itself would be cured. More recent experience, while proving the fallacy of this attitude, does in no way contraindicate intranasal or sinus surgery for the relief of pathology unrelated to allergy. In short, no patient should be denied the benefits derived from the relief of chronic nasal obstruction or from true sinus infection, simply because he has hay fever or some other nasal allergic condition. A note of warning, however, should be sounded regarding the proper time for surgery upon potential allergics, i.e., upon those individuals who have not yet developed allergic symptoms but who have definite familial allergic backgrounds. Surgery performed during or immediately before the early or late summer hay fever seasons seemingly has precipitated the initial attack of pollenosis in a considerable number of cases. Several observers have noted this tendency and have advised that surgery in this class of case, unless of emergency nature, should not be

performed during, or close to, the major hay fever seasons.

BENNETT KRAFT, M.D. (Indianapolis): I have enjoyed both the paper and the discussions very much and should like to emphasize a few points.

First of all there is the subject of food diary. In my practice this method has helped greatly in cases of vasomotor rhinitis in which condition scratch tests are usually negative and the intradermal test fails often. The patient is provided with standardized charts upon which he records daily all that he eats for each separate meal, together with ensuing symptoms. Such a report may continue over an indefinite period. By examining consecutive charts it is frequently possible to detect the causative allergen where skin tests have been ineffectual.

Allergic patients suffer from a constitutional disease and like the diabetic patients require treatment and management over a period of years, and not just a few injections. Quite often a negative family history for allergy is obtained; first, because inquiry has not been extended to more remote relatives as uncles, aunts, cousins, and the like, and secondly, because the patient's vocabulary often differs from the doctor's; for example, *tisic* or *phthisic* for asthma, and *tetter* for eczema.

The last point to be stressed is the management of the allergic patient who is an only child in the family. Such cases frequently have an important psychic factor which must be included in the consideration of the case.

## EMOTIONAL FACTORS IN SKIN DISEASES

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Indianapolis

We Americans are living in a high speed civilization. It is natural that much of our sickness is due to the system under which we live. In times past, infections and parasitic diseases flourished. Now their place is taken by diseases associated with exhaustion, nervous fatigue, and high pressure living. Nowhere is this better illustrated than in the skin. With so many "must" things always in our day, it is only natural that the primitive urge to scratch should come to the fore and expressions of maladjustments be evidenced in the skin. This is not a simple thing, for the expression takes place in a variety of ways.

It is important, first, to carefully exclude physical defects and flaws as causes of the skin disorder. A mechanical dermatological screen test should be given. The patient should be given a careful physical checkup and proper laboratory help with search for focal infection, high blood pressure, definite glandular defects, irritating contacts, and fungi. In some instances, it is neces-

sary to make use of skin tests for sensitivity to foods and other allergens before one can proceed safely to explain the symptoms on the nervous basis alone. I have seen a number of cases in my practice with a variety of symptoms and labeled with assorted names explainable only on a basis of shock, exhaustion and maladjustments.

Alopecia areata, with its sudden and complete loss of hair in spots, is common in dermatological practice. I have an interesting case in mind. A young lady, age 25, learning to drive an automobile, stalled her car in front of a speeding interurban. The interurban stopped within a few feet of the car. The patient fainted and was in a highly nervous state for several days. One week later I saw her because of suddenly appearing bald spots on the scalp. Within a couple of weeks I observed deep transverse grooves on both thumb nails and big toe nails. The patient had an uneventful recovery without return of her alopecia areata.



Another patient was a woman, age 35, whose child was severely injured in a fall from a pony. The illness of the child was prolonged and a number of operations were necessary. The mother developed a marked alopecia areata about ten days after the child was injured. Transverse grooves appeared in the nails. Shortly after each serious operation on the child, the mother rapidly developed new bald spots and new grooves in her nails. Some of these transverse grooves were deeper than others and I tried to visualize her mental anguish by the depth of the grooves in her nails.

Many young women complain of dermatitis of the eyelids. This is particularly common in school teachers toward the end of the spring term. It is hard to explain this on an allergic basis. Most of these patients are tired and have overworked. Many are trying to keep house, take extra courses, or take care of some sick relative in addition to a full time position. It is gratifying to see the quick response to rest and freedom from worry.

A few years ago an important factory was in serious financial difficulties. Only two officers of the company knew the real seriousness of the situation. One developed a generalized pruritus and a temporary glycosuria. The other developed itchy ears which became reddened and then vesicular. He had recurrent crises of itching and swelling of the ears which followed conferences with his bankers. After the financial crisis had subsided, response to simple medication was very rapid.

A girl, age 17, high school senior, complained of an extensive pruritic dermatosis of the face, neck and upper part of thorax and arms. She took a very active part in extracurricular activities in addition to a full social life. She averaged about seven hours sleep. Her complaints of fatigue, nervousness, and insomnia preceded her skin eruption. Her blood pressure was 104 systolic and 70 diastolic, and her basalmatabolic rate was -20. She presented the picture of complete exhaustion. She remained in the hospital for a month's rest. When her skin activity had subsided, patch tests and scratch tests were made for sensitivities, with negative results. When she attempted to over-exert herself, her eruption reappeared. A more fixed mode of living was worked out—less excitement and more rest. As long as she followed this strict regime, her skin remained in good condition.

A young man, age 20, college student, complained of a widespread itchy eruption involving face, neck, thorax, and flexors. He was doing poorly in college and had failed his exams. He was a member of a family that did not countenance failure in college. His father was very strict and insisted that the boy continue. The patient knew he had reached his intellectual limit. When the matter was explained to the parents, the boy withdrew from college, and his skin rapidly recovered. His physical examination was negative

and laboratory tests gave no help. I have seen this patient over a number of years and each time that he has an emotional crisis, his skin flares up. When his mother died, he was forced to remain in the hospital for three weeks until the skin eruption cleared.

Chronic urticaria presents a difficult problem to work out. While some cases are due to focal infections, such as diseased gall bladder and appendix, others are associated with high blood pressure and some are found during the menopause. Still others are explainable to me only on a nervous basis.

A patient, woman, age 54, prosperous, always had enjoyed good health until one year ago when she developed an urticaria. This improved when she was away from home. Her physical examination revealed a few bad teeth and infected tonsils. These were removed. Her urticaria vanished. When she returned to her home in a neighboring city, her urticaria returned. On her second visit to Indianapolis, her husband accompanied her. The urticaria became worse. Tests were made for sensitivities with no results. When her husband was called home because of business, her urticaria promptly cleared up. The patient stated frankly that she hated her husband so because of his extramarital adventures that she broke out when closely associated with him. She was very fearful of venereal disease. Her hives probably were defensive in nature.

I have seen skin manifestations which were minor in consequence greatly activated by worry and exhaustion.

W. M., age 52, a doctor's wife, had had a small area of lichen chronic simplex on the nape of the neck for many years. Her husband was greatly overworked in a large country practice. He developed organic heart trouble. Her lichen became active, very itchy, and spread markedly. The doctor had several coronary attacks and, after each one, his wife's skin became activated. When he retired from active practice and improved in health, his wife's skin rapidly responded to treatment.

Acne rosacea is another symptom complex which can be greatly aggravated by emotional upsets. R. B., age 38, wife of an attorney, had enjoyed good health, and was the mother of two children. She always had a tender skin and flushed easily. A little powder disguised the slight redness of her nose. Her husband lost the family bank roll gambling on the stock market. They were compelled to lower their standard of living and move to a smaller home. She knew nothing about financial conditions. When her bubble of security exploded, she developed a frightful case of rosacea. After many months she adapted herself to the changed conditions. It takes very little now to stir her skin into activity.

So much stress has been placed on fungous infections with their varied manifestations in recent years that dyshidrosis or pompholyx has almost

been forgotten. This affection is characterized by itching, burning, and the appearance of deep seated clear vesicles on hands and feet. The eruption is symmetrical, and appears suddenly on palmar and plantar surfaces and between digits as well as on dorsal surfaces. This condition is usually found on those who have moist hands and feet. I have seen several cases which have occurred after auto accidents. I also have in mind a man who was very apprehensive about testifying in court. A violent attack on hands and feet ensued after he was subpoenaed. It is common to see pompholyx in students after the final examinations.

While the definite cause of lichen planus is unknown, its common occurrence in patients who are nervous, depressed, or worried is well known. Lichen planus is characterized by glistening flattened papules of violaceous hue. The eruption is usually generalized. The mucous membrane and genitalia may be affected as well as the skin on other parts of the body. When the eruption fades, a brown stain usually remains at the site of the skin eruption for some time. A very acute case of lichen planus occurred in a politician shortly after he finished a very vigorous and disheartening campaign. Another case occurred in a middle-aged woman whose son, of high school age, wandered away from home and kept his parents in ignorance of his whereabouts. I have noticed quite an emotional let-down in lichen planus about the time the skin begins to clear up. It seems as though the patients are re-establishing the normal emotional route of crying when the skin is relaxing its tension.

So many factors may cause pruritus vulvae and ani that a physician is reluctant to rely on the nervous hypothesis until every other factor has been thoroughly checked. The skin is second only to the genital organs as a source of sexual excitement. The involution processes in later life may lead to interest in the anal region with a diminution of genital eroticity. Many observers have noticed the tendency for pruritus ani and vulvae to appear in later life.

Trichotillomania is occasionally seen. In this condition the patient forcibly pulls out hair, usually from one area. Sometimes this is a mere mannerism; in others it may be uncontrollable and large bald patches are produced at one time.

Some patients may call attention to their skins by self inflicted wounds. This is called dermatitis factitia. Areas involved are usually on some exposed part. The lesions appear suddenly, sometimes overnight, and do not resemble any known skin disorder. The eruptions are streaked and angular. Frequently some minor injury occurs which focuses the patient's attention on the skin.

A young girl, age 16, had burned herself at school in a science course. She received considerable attention from everyone. Shortly afterwards, her father was notified of a transfer to another part of the country. Streaked superficial lesions began to appear suddenly on her forearms, partic-

ularly marked on the left forearm. The parents were very apprehensive. When the situation was explained to the young girl, she confessed that the wounds were self-inflicted. She had been touching herself with acid with the hope that she would not have to move away from her friends.

The presence of skin eruptions on the exposed parts on sensitive people play an important part in moulding their lives and developing an inferiority complex. This is notably true in acne in young girls. What seems to be a trifling matter to the parents and the physician may be a colossus to the adolescent. Other skin diseases such as lupus erythematosus or even psoriasis on exposed parts definitely act as a handicap in the development of the personality and may produce a neurosis.

In checking over cases in which the nervous factor is the outstanding thing, I am impressed with the fact that the majority of the cases are women. They have carried the blush phenomena to its extreme and "let their steam off" in the skin while the poker-faced male frequently gets a coronary attack when placed under pressure. Pathology in the skin can be repaired without serious damage to the individual while the same trouble inside would lead to disaster. Often these patients are quite superior mentally and have led hurried busy lives and have never quite caught up with themselves. Low basal metabolic rate and low blood pressure are frequent findings. There are often associated functional gastrointestinal disturbances. The prognosis for life is usually good in this group. They frequently escape high blood pressure. Their waves of emotional tension are lost in the skin.

Since medicine has assumed such a mechanistic phase, it is easy to lose sight of the psychic phase of disease. This can not be measured by the laboratory methods. "I'm nervous" is still one of the common complaints that every doctor hears daily. The act of understanding the patient and helping him find a way out of his difficulties is still one of the prime duties of the doctor.

We Americans need a new philosophy of life with less worship for speed and efficiency. Perhaps "the pause that refreshes" and "let up and light up" can be extended into longer lunch hours and a let up in the middle of the afternoon. It is rather ironic, yet truly American, that soft drink and tobacco ads may show us a way out of our neuroses. Older civilizations have solved the problem and we will find the American way by slowing down the speed of life—better spaced holidays and perhaps by being less ambitious and more content with our lot. The lazy man will inherit America.

407 HUME MANSUR BUILDING.

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## NASAL AND OCULAR ALLERGY

C. E. SAVERY, M.D.

South Bend

In selecting the subject of nasal and ocular allergy it is my desire to make this paper as practicable as possible, consequently the fundamentals of anaphylaxis and some of allergy will not be discussed.

In the routine diagnosis and treatment of nasal and sinus diseases, the consideration of the allergic phases is extremely important. Given a case of nasal allergy, the diagnosis resolves itself around the correlating of the family history, clinical history, symptomatology, nasal findings, cytology of secretions, x-rays, bacteriology, bio-chemical analysis of the secretions, histopathology of tissues, skin testing, trial diets and leukopenindex tests.

In the diagnosis and treatment of the inflammatory diseases of the nasal and paranasal conditions, the high incidence of allergy warrants the investigation of this factor in a great many of the cases. Hansel states, "In one thousand cases we have found the incidence of allergic disease about forty per cent among all complaints referable to the nose and paranasal sinuses." Similar studies by Baum in two thousand cases have shown an incidence of allergy in 27.03 per cent among the nasal and sinus cases.

In non-allergic patients in whom operative procedures are anticipated, it is customary after careful preliminary studies to proceed with necessary surgical interference. In allergic patients, however, it is advisable, as a rule, to institute treatment by allergic methods before resorting to surgical correction of any kind. It is important, therefore, that a definite distinction be made between these two groups of cases.

In the diagnosis the family history should be of a positive nature, that is there should be some history in the family of one or more allergic diseases of which we would include hay fever, asthma, bronchitis, vaso-motor rhinitis, eczema, urticaria, angio-neurotic edema, headaches, gastro-intestinal disturbances suggestive of allergic basis or some form of ocular allergy. A positive family history according to Hansel may be found so in sixty-five to seventy per cent. However, an apparent negative family history does not mean that the patient is non-allergic.

The clinical history should show at least one of the above mentioned types. The past history may reveal the circumstance causing the onset of nasal manifestations, which is important because it suggests possible causative factors. In children, nasal allergy or asthma may begin in the wake of gastro-intestinal allergy, eczema, or urticaria which first appeared in early infancy or childhood. Infectious diseases of acute nature such as whooping cough, measles, scarlet fever, and diphtheria are frequently the cause of the precipitation of

respiratory allergy. Acute infections of all kinds are especially prone to cause respiratory allergy in those patients who have or have had other manifestations of allergy. In other instances the onset may be associated with some contact with food or inhalant substances.

In adults as with children, nasal manifestations frequently occur in the individual who not only gives a family history but who also gives a history of the occurrence of other manifestations of allergy in the past and present. Nasal symptoms may follow acute upper respiratory infection, especially influenza. They may begin as pansinusitis and merge into an allergic condition. A change in diet with addition of new foods may suggest the offending allergens. A change in residence, occupation, climate, clothing, household pets may be the source of new allergens. The onset of symptoms may be associated with puberty, in women with menses, pregnancy and menopause. Also operative procedures especially in and during the pollen season may precipitate allergic conditions.

The symptomatology in the typical cases are sneezing, nasal obstruction, discharge, itching of nose and watery discharge of eyes. However, in the typical cases the symptoms may simulate acute rhinitis, chronic rhinitis, functional or other conditions, and clinical diagnosis on the basis of symptomatology may be established only after careful analysis of all details, nature of individual attacks, frequency and duration, whether they are continuous or intermittent, occur at certain times of year, day or season, whether the patient feels better indoors or outdoors, and better in summer or winter.

Finding eosinophiles in the nasal secretion is of further importance in diagnostic value. These are not estimated in per centage but in distribution. X-ray generally reveals edema of all sinus mucosa more or less evenly distributed without marked thickening of the periosteum, in contradistinction to thickened periosteum and varying degrees in edema of sinus mucosa as found in suppurative processes. The allergic mucosa may be extremely edematous one day and in twenty-four hours practically of normal thickness. Not so in infectious conditions. Colds that do not reach the purulent stage should make one suspicious of an allergic state. Bacteriology may represent organisms found in allergic noses as a secondary factor. At least in hyperplastic sinusitis, most men believe this to be primarily allergic and that bacteria occur secondarily when stagnation in the nose and sinuses occurs from poor ventilation and drainage. Allergic and infectious situations can and often do occur coincidentally. You can study progress

of the pathology by check on neutrophiles, eosinophiles and bacteria in the nasal smear. The mixed infection and allergic picture will not only give a mixed cytologic picture but physico-chemical changes which characterize this picture.

Under normal conditions, secretions of the nose and sinuses maintain a certain physico-chemical composition which fluctuates within a limited range according to the demands of physiologic function. The p.h. or hydrogen ion concentration may show slight variations to the acid or alkaline side. Although the nitrogen and viscosity values may be within normal limits, the hydrogen ion concentration tends to remain on the alkaline side, 6.5 or below.

Histo-pathology of nasal and sinus tissues is primarily characterized by edema and eosinophilic infiltration, increase in goblet cells, plasma cells and few lymphocytes. The greatest edema and polyp formation is above the capillary network or bed. Eosinophiles supposedly are found in bone marrow. The number of eosinophiles found in the blood stream of an allergic individual vary considerably and bears no constant relationship to the symptomatology. Grossly, the nasal mucous membrane in attacks is pale bluish, soggy or edematous, with much watery secretion and with sufficient edema to produce polyposis.

The further diagnosis is supplemented by skin tests, the clinical and positive family history being the most important. The specific skin testing is of secondary importance, while the clinical is the most important. In general the object of the clinical investigation is to determine the type of sensitivity, frequency and degree of contact and relationship to secondary factors.

From the etiological standpoint the nasal manifestations of allergy may be divided into three main types, pollen, inhalant, exclusive of pollen, and foods. Example of type one, grass and weed pollen; type two, exclusive of pollen, feathers, dust, orris root, pyrethrum and molds; and type three, foods.

In methods of testing, the skin being the immunologic organ of the body, scratch and intradermal tests are most often used. In addition, intra-mucosal tests of the nose, conjunctival tests, patch, passive transfer, trial diets and leukopenic tests of foods.

An ideal positive skin test reaction shows an urticarial wheal with a red areola, plus a sense of itching. The antidote to severe reaction should be a tourniquet to the arm where these tests should really be made and the injection of the least amount of adrenalin that is necessary injected preferably in the other arm, as well as the urticarial lesion.

The usual manner of treatment is, if possible, withdrawal of contacts from known allergens to a minimum, especially foods and desensitizing treatments.

In true nasal and sinus allergy, local treatment

is generally of no avail. Also the allergic asthma and bronchitis is a continuous process down into the bronchial tree. Finally the diagnosis can be well established after correlating the positive findings as mentioned in the beginning of this paper. The diagnosis of other allergies such as the respiratory, gastrointestinal and skin types may often be found and can dovetail with the nasal and be found existing in these individuals at the same time.

In the ocular manifestations of allergy, many experiments have indicated that the eye, like most tissues, take part in the immunological reactions not unlike elsewhere. The most common form of allergic conjunctivitis until lately that confronts the ophthalmologist was that due to pollen. Recent work done regarding the possible allergic character of vernal conjunctivitis, so-called allergic cataract, relationship of bacterial allergy to certain inflammatory conditions of the eye, have increased study of the possible relationship of bacterial allergy to ocular abnormalities. Types of ocular conditions seriously considered as suggestive are allergic and vernal conjunctivitis, contact dermatitis and edema of eyelids, cataract, sympathetic ophthalmia, corneal ulcers, focal eye reactions due to bacterial allergy, ocular tuberculosis, lesions of the retina and optic nerve, visual allergy and ocular headaches due to allergy. All the tissues and organs that make up the eye can be involved in these reactions. Woods of Johns Hopkins has advocated that the allergic nature of ocular inflammations is due to foci of infection in other parts of the body and especially to tuberculosis; that the specific organisms are not recovered in the ocular tissues; that these conditions are due to toxic products of these organisms. That in tuberculosis, for example, the eye manifestations are caused by hypersensitivity to the tuberculo-protein and not specifically the organism itself. Even though the patient is immune to the tubercle bacillus and no active infection can be demonstrated, he may develop tuberculous conditions due to his allergy to tuberculo-protein.

Some of the allergic conditions of the lids and ocular adnexa present symptomatology representative of classical allergic evidence even though difference of opinion of various workers exists, but the seasonal incidence, itching, lacrimation, watery discharge, photophobia of different types of conjunctivitis furnish us our most common form of ocular sensitivity. In making the diagnosis in these cases, the same correlation of findings as mentioned above is necessary. The history may suggest the nature of the offending allergens, its time or seasonal occurrence, the eye secretions may be stained with Giemsa's stain for eosinophiles, and the usual further tests should be made as in diagnosis of any allergic disease. Then the treatment should be carried out as generally indicated. Most workers agree that endocrine balance and vitamin intake play a part in the accentuation and



etiology of allergy and therapeutically these ad-juncts are important in the treatment and help to improve the status of these patients physically.

In conclusion, in nasal allergy, an understanding of the relationship to the inflammatory diseases of the nose and para-nasal sinuses entails the clinical and histo-pathological study of vaso-motor rhinitis, hay fever, bronchial asthma, nasal polyposis, edema and hyperplastic sinusitis.

The diagnosis should be based on the following: nasal symptoms, rhinoscopic examination, eosinophiles in the secretion, x-ray study of the sinuses, histopathologic studies of the nasal and sinus tissues, the allergic state of the patient with reference to occurrence of other manifestations of sensitivity, a positive family history of allergy, and the presence of positive skin tests.

Most nasal polypi should be considered a sensitivity or secondary to a suppurative process.

Non-suppurative or hyperplastic sinus disease

should be considered allergic until proven otherwise.

Allergic sinus disease with or without secondary infection should be differentiated from primary sinus infection with edema, hyperplasia or polypi.

Allergic sensitivities of the eye and adnexa play an important part in ophthalmic diseases, and the complete investigation of these conditions parallels very much in diagnosis that of nasal sensitivities or any type of general allergy. The endocrine balance and vitamin intake is to be considered in the management of these cases as is done in all sensitivities.

It is evident that allergy plays a very important part in general medicine, but especially so in rhinology and ophthalmology, and the improvement in the handling of a good many cases in our specialty makes it apparent that our knowledge of this phase of practice is of vital concern.

## OBSTETRICS IN GENERAL PRACTICE

### A CONSIDERATION OF THE CAUSES OF MATERNAL AND FETAL MORTALITY\*

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Statistical studies are often confusing and at times are misleading, but they frequently offer a background from which specific problems may be approached. It seems reasonable then that a consideration of the factors responsible for maternal and fetal mortality in several such statistical studies may point the way towards future improvement. It is not proposed to confuse with masses of such data, but rather to present for consideration the major problems which are illustrated by them.

#### MATERNAL MORTALITY

The mortality associated with childbirth in the United States is usually reported as being high in comparison with that in other countries. This may be due in part to varying methods of recording and computing mortality rates, but nevertheless the rate in this country is high. Of even greater significance is the fact that the mortality associated with childbirth has not been materially decreased over a period of many years. In 1915 the total puerperal death rate in the birth registration area was 6.1 per 1,000 live births. In 1931 it is recorded as 6.6 per 1,000 live births. Perhaps this increase may be partially explained on the assumption of greater accuracy in recorded statistics, so that reports now available are more

complete. It may also be explained in part by the fact that during this period of time states having a large Negro population have been added to the registration area. The mortality rate among Negroes is approximately twice that among the white peoples. A comparison between the 11 states originally included in the area does not decrease the rate, so that other factors may be responsible. There has been a diminishing birth rate during this period of time which has resulted in a definite increase in the proportion of first born children. The age at the time of the first pregnancy has also tended to increase. Both of these may be factors in increasing the mortality. However we interpret these statistics, a total of approximately 15,000 women die annually from causes associated with childbirth.

Of fundamental importance is the fact that many of the women who die in childbirth have not received any antepartum care, or if they have, it has been woefully inadequate. This is emphasized by the reports of recent studies. In a study by the Children's Bureau of maternal mortality in 15 states,<sup>1</sup> statistics are available concerning 5,636 deaths. Fifty-four per cent of these patients had received no antenatal care, and 13 per cent more had received totally inadequate care. In a study of maternal mortality during 1931-1933 in Philadelphia,<sup>2</sup> 717 deaths were inves-

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<sup>1</sup> Maternal Mortality in Fifteen States. U. S. Department of Labor, Children's Bureau. Publication # 223.

<sup>2</sup> Maternal Mortality in Philadelphia. Philadelphia County Medical Society. 1934.

tigated. Forty-one and four-tenths per cent of these patients received no antenatal care and in twenty-seven per cent, the care was inadequate. Similarly, a study of maternal mortality in New York City<sup>3</sup> shows that of 1,564 deaths during 1930-1932, a total of 61.6 per cent received inadequate or no prenatal care. Peckham,<sup>4</sup> in a recent report of 447 maternal deaths in rural Maryland during 1930-1936, states that two-thirds of the women dying of puerperal causes had not sought medical aid prior to the onset of labor or the fatal illness and that only one out of ten had had adequate prenatal care.

This tragic situation is not always the fault of the physician. He cannot be entirely to blame if the patient does not take advantage of care during pregnancy. He must assume a major portion of the blame, however, for failure of the general public to recognize the importance of adequate care. He becomes increasingly to blame if he fails in an opportunity to insist on good care when the patient does present herself. Perfunctory care is worse than no care at all, for it gives the patient and perhaps the physician a false sense of security.

When we attempt further to explain these maternal deaths, the one outstanding change in obstetric practice during this period of time has been the general tendency to an increased incidence of interference at the time of delivery. This coupled with the increased use of anesthesia and analgesia may well be an important factor. The New York Committee reported that of 348,310 live births, 20 per cent of the deliveries were operative with a total death rate of 10.5 per 1,000 as compared with a total rate of 2 per 1,000 for spontaneous delivery. Plass<sup>5</sup> in this country and Oxley<sup>6</sup> in London have estimated that 94 to 95 per cent of deliveries should be normal and spontaneous. While this figure may seem high, it is interesting to note that Young<sup>7</sup> reports the interference rate at 3.2 per cent in Sweden, 4.5 per cent in Denmark and under 1 per cent in Holland in those areas where it is ascertainable. Obviously one cannot say that operative interference is the only cause of death under such circumstances. Where a high mortality rate is associated with an increased frequency of interference, however, one may justifiably question the indications for interference. In many instances where death occurs following operation, the physician has not seen the case before labor or before the acute emergency occurred. In the deaths studied in the United States Children's Bureau Report this was true in 43 per cent of the cases delivered by operation. Under such circumstances,

the operation of election is not always possible and the physician is forced to do something which he realizes may not be the best. This shows, from another point of view, the necessity of insisting upon continuous prenatal and adequate delivery care so that institutional care may be provided for those patients who require hospitalization for the safest management of their cases. It should not be necessary to admit many patients to hospitals as emergencies. It is under those circumstances that the risk for the patient and her infant is greatly increased. In the mortality study in 15 states previously mentioned, 1,893 of the deaths occurred in hospitalized patients past the seventh month of gestation. More than half of this group, 996, were admitted as emergencies, and many had had attempts at delivery previous to their admission.

It has been estimated that a considerable portion of our maternal deaths are preventable. The New York and Philadelphia reports investigated this phase particularly and concluded that 65.8 and 56.7 per cent respectively were due to errors of judgment or of negligence that were preventable. We can be assured that this represents a minimum as these records were very carefully scrutinized and all doubtful cases classified as not preventable.

Approximately three-fourths of the 7,380 deaths studied in the Children's Bureau Report of Mortality in Fifteen States were due to three causes. These are (1) infection, which was responsible for 40 per cent of the deaths; (2) toxemia, which contributed 26 per cent of the deaths; and (3) hemorrhage, which was the cause of death in 11 per cent of the group.

Puerperal infection is responsible then for nearly one-half of the deaths which occur associated with pregnancy and childbirth. It differs from the other causes of maternal death in that it is not itself an abnormality inherent in the risk of pregnancy and delivery. It is an invader usually associated with poor preparation and improper conduct of labor and delivery. In the last trimester of pregnancy, 95 per cent of the women in the fifteen states studied who died of sepsis had a spontaneous onset of labor and 65 per cent a spontaneous termination. In only 40 per cent of these cases was the technic said to be aseptic. Vaginal examinations often without gloves were frequent, preparation of the patient was often inadequate with less than half having been shaved and scrubbed.

Among the patients who were operated upon, fatal infection followed forceps delivery in 26 per cent, version in 19 per cent, and cesarean section in 47 per cent. Such a high incidence of death from infection can only mean that in many instances the operative procedure was either improperly performed or that unsatisfactory indications and requirements were used. This is particularly true of the deaths following cesarean

<sup>3</sup> Maternal Mortality in New York City. Commonwealth Fund. New York. 1933.

<sup>4</sup> Peckham, C. H., *Am. J. Obst. & Gynec.* 36:317, 1938.

<sup>5</sup> Plass, E. D., *Am. J. Obst. & Gynec.* 22:176, 1931.

<sup>6</sup> Oxley, Philips, Young, *Brit. Med. Jour.* Page 304, 1935.

<sup>7</sup> Young, J., *Am. J. Obst. & Gynec.* 31:198, 1936.



section. Eclampsia was the most frequent indication in this group with pelvic contraction next in frequency. Nearly all of the cesareans were done as emergency procedures, often after prolonged rupture of the membranes, after attempts at delivery from below, and upon women in poor general condition. Many were multiparae upon whom the operation was performed in an effort to save the baby, and yet in one-fourth of the cases the baby was stillborn. The importance of considering contraindications to an operative procedure, as well as carefully evaluating the indications, is emphasized by the following data taken from a review of cesarean section compiled by Davis.<sup>8</sup> The mortality associated with cesarean section as an elective procedure is 0.5 per cent and after a carefully controlled test of labor is 0.5-1.0 per cent. If the operation is not performed until after prolonged labor, it increases to 3.0-5.0 per cent and if the membranes have been ruptured for over 24 hours, the mortality is 5 per cent. Where there have been repeated vaginal examinations performed, the mortality is 5-8 per cent and after operative manipulation from below, it is raised to 10-15 per cent. Lastly, the mortality is 15-25 per cent where the operation is performed in the presence of infection.

The second major cause of maternal death is found in the toxemias of pregnancy. Experience indicates that death from toxemia can be greatly reduced if not entirely prevented. The chief method of attack is early detection and adequate control. This necessitates continuous and intelligent prenatal care, early recognition of untoward symptoms, judicious treatment during pregnancy, as well as during and after delivery. Essential in such a program is the cooperation of the patient. In the Fifteen States Study, three-fifths of the women who died of toxemia were in convulsions or coma when first seen. Others had refused prenatal care or the termination of pregnancy when indicated. Nevertheless, the treatment of this group of patients was often ill-advised. Induction of labor was infrequent while accouchement force was commonly employed. Radical treatment of eclampsia is almost never indicated yet cesarean section, usually under general anesthesia, was the most frequent method of delivery.

The adequate treatment of the eclamptic patient cannot be over-emphasized. It should be directed primarily toward the control of the convulsions with proper sedation and the establishment of a diuresis with hypertonic glucose intravenously. Secondary to these procedures is the completion of the delivery or induction of labor.

Perhaps of even greater importance, however, is the early recognition and careful treatment of the patient with toxemia of pregnancy to the end that convulsions do not develop and serious damage is not done to the mother. Danger signals

which indicate hospitalization in these patients are listed by Dieckmann<sup>9</sup> as follows:

1. A sudden increase in the weight of 3 pounds or more per week.
2. A sudden rise of the systolic blood pressure of 30 mm. or more.
3. An increase of the proteinuria to 0.5 per cent or more.
4. A +++ test for albumin in the 24 hour volume of urine.
5. The sudden appearance of edema in a patient who has been gaining excessively.
6. The onset of the various cerebral, visual, or gastrointestinal symptoms.

If control of the diet, rest, and elimination does not result in improvement, the pregnancy may then be terminated prematurely. By these methods the life expectancy of the mother may be increased and the fetus given its best chance of survival.

Puerperal hemorrhage is the third most frequent cause of death and was responsible for 11 per cent of the deaths in the Study of Maternal Mortality in Fifteen States. Hemorrhage was the immediate cause of death in 347 patients with placenta previa, 374 patients with postpartum hemorrhage and in 70 patients with abruptio placentae.

Perhaps the most striking fact revealed was the infrequency of blood transfusion. In 893 women who had postpartum hemorrhage before death, only 78 were known to have been transfused. Only 27 of the 408 women with placenta previa were transfused. The mortality rate from obstetric hemorrhage can be lowered only if sufficient, properly matched blood is transfused, and it must be given within a short period of time after the hemorrhage.

In the treatment of placenta previa several points are worthy of emphasis. First of all, there is no expectant treatment, yet in over 90 per cent of the patients with a warning hemorrhage early in pregnancy, treatment was delayed. Secondly, the management of placenta previa is primarily to control the bleeding and treat the shock and acute anemia; it is not to accomplish the immediate delivery of the fetus except as a means to this end and in properly selected cases. In the group mentioned above, however, the most frequent form of treatment was version with immediate extraction.

The plan of management for all patients with bleeding during the last trimester of pregnancy should consist of the following:

1. Immediate hospitalization.
2. Preparation for transfusion.
3. Sterile vaginal examination to determine the presence and degree of placenta previa and the condition of the cervix.
4. Control of the bleeding by such procedures as (a) rupture of the membranes, (b) insertion of an intra-ovular bag, (c) Braxton

<sup>8</sup> Davis, M. E., Personal Communication.

<sup>9</sup> Dieckmann, W. J., *Ill. Med. Jour.* 72:226, 1937.

Hick's version, or (d) Willett's forceps, depending upon such circumstances as the viability of the fetus, condition of the cervix, extent of placenta previa, and parity and condition of the patient.

5. Replacement of blood loss.
6. Delivery. In a favorable environment, the safest procedure for both mother and infant may be immediate cesarean section, particularly in the nulliparous patient with a firm, closed cervix and in the presence of a total placenta previa.

Abortion as a factor in mortality associated with pregnancy and childbirth is emphasized by the facts revealed in the Fifteen States Study. One quarter of all the maternal deaths followed some type of abortion. Three-fourths of these deaths were due to puerperal septicemia. Fifty per cent of the abortions were known to be induced. Tausig<sup>10</sup> estimates that 700,000 pregnancies terminate in abortion each year, or approximately one in four or five conceptions. He believes that 7,000 to 8,000 of these result in death. Many factors are responsible for this situation and the problem is one of the most difficult we have to face. Increasing education with a better understanding of the dangers of induced abortion and the causes of spontaneous abortion are of importance. The proper management of abortion by the physician is also essential. Curettage of the potentially septic case is contraindicated and the use of the sharp curette is definitely to be condemned. Here again transfusion is often of great value and too frequently neglected.

#### FETAL MORTALITY

The factors responsible for fetal death are equally worthy of consideration. Approximately 80,000 stillbirths occur annually. In addition, there are annually in the neighborhood of 70,000 deaths during the first month of life. Since 1915 there has been a marked decrease in infant mortality during the first year of life, but this gain has been largely after the first month. The mortality rate during the first day of life and the stillbirth rate have been essentially unchanged over a period of the past 20 years. It would seem logical, therefore, that further reduction in infant mortality is an obstetric problem.

The factors responsible for these deaths are difficult of analysis, as in many instances they are present in combination and often the underlying cause of death is not recognized. This is well illustrated by the reports of Bundesen, Potter, and co-workers<sup>11</sup> which show that without careful necropsy, it is almost impossible to arrive at accurate information concerning the actual cause of death. Prematurity, birth injury, asphyxia, malformations, toxemia, syphilis, and infections are

usually considered as the most frequent of the factors involved.

Prematurity is often not the real reason for death in infants born before term. This has been shown in many studies, among them the recent investigation being conducted by Bundesen and his associates in Chicago. In 243 neonatal deaths in premature infants some other cause than prematurity was found at necropsy in 54.4 per cent. Of the group with no demonstrable pathologic conditions, such maternal complications as toxemia, placenta previa, and abruptio placentae may have played a part in causing death in some instances. As the period of uterogestation increases, causes of death other than prematurity are likely to be found.

It is essential that some definite standard be established for the classification of premature birth. Adair<sup>12</sup> has suggested the following criteria for establishing the age of the fetus and newborn infant:

#### I. Abortion

1. Less than 400 gm. in weight
2. Less than 28 cm. in length
3. Less than 22 weeks (missed abortions excluded)

#### II. Premature

##### A. Previsible

1. From 400 to 999 gm. in weight
2. From 28 to 35 cm. in length
3. From 22 to end of 28 weeks

##### B. Viable

1. From 1,000 to 2,499 gm. in weight
2. From 35 to 47 cm. in length
3. From 29 to end of 37 weeks

#### III. Term

1. From 2,500 to 4,499 gm. in weight
2. From 47 to 54 cm. in length
3. From 38 to end of 43 weeks

#### IV. Postmature

1. More than 4,500 gm. in weight
2. More than 54 cm. in length
3. More than 43 weeks

The infant is placed in the group in which two of the three criteria fall.

That survival is possible in the infant weighing less than 2,500 gm. is shown by the record of the Michael Reese Premature Station<sup>13</sup> where, of 646 infants weighing from 1,000 to 2,500 gm., 76 per cent survived. Ehrenfest<sup>14</sup> states "It seems fair to assert that the obstetrician cannot any longer, for statistical or any other purposes, coolly deny all responsibility for the death of a newborn infant below 2,500 grams." This responsibility consists of antenatal care aimed at the prevention of prematurity, the use of the least dangerous methods for delivery, and the prompt provision

<sup>10</sup> Tausig, F. J., *Am. J. Obst. & Gynec.* 33:711, 1937.

<sup>11</sup> Bundesen, H. N., Fishbein, W. I., Dahms, O. A., Potter, E. L.: *J. A. M. A.* 109:337, 1937.

<sup>12</sup> Adair, F. L., In use at Chicago Lying-in Hospital.

<sup>13</sup> The Physical and Mental Growth of Prematurely Born Children. Hess, J. H., Mohr, G. J., Barthelme, P. F., University of Chicago Press, Chicago, Illinois, 1935.

<sup>14</sup> Ehrenfest, H., *Am. J. Obst. & Gynec.* 31:169, 1936.



for the maintenance of body temperature, proper feeding, protection against infection and the use of oxygen.

Birth injury is one of the most important problems with which we have to contend in the reduction of infant mortality. Eardley Holland<sup>15</sup> states "Even under the best possible birth conditions, injuries are liable to occur. Nowadays there are factors, increasingly common, which may act prejudicially; such, for example, as elderly primiparity, the demand for shorter and more comfortable labor, the overuse of anesthetic and oxytocic drugs, and the abuse of the obstetric forceps and labor induction." Such injury is usually intracranial and may result in gross hemorrhage or in sufficient cerebral compression to result in congestion and edema producing an increased intracranial pressure. Vertebral and spinal cord injury and injury to the parenchymatous organs must not be ignored. Ehrenfest<sup>16</sup> reports that 80-90 per cent of deaths subsequent to breech delivery are traumatic and that 25 per cent of stillborn deaths are due to injury, with trauma a factor in an additional 25 per cent. Dangerous cranial stress and subsequent injury are liable to occur in (1) breech delivery, (2) forceps delivery, (3) premature labor, and (4) too rapid labor particularly where oxytocic drugs are used.

Ill-advised or unskillful interference increases such injuries. It is suggested that such mortality can be decreased by limiting artificial interference to well-defined indications where favorable external circumstances are present. If interference is decided upon in the interests of the infant, the selected method should lessen the risk for the child without increasing the risk for the mother. If interference is decided upon in the interests of the mother, the associated risk for the child should not be ignored.

Asphyxia is frequently associated with intracranial injury insufficient to produce actual hemorrhage. Prolonged labor with difficult delivery increases the chances of cerebral compression and respiratory depression. Bundesen<sup>17</sup> and his workers point out that (1) breech presentation, (2) the use of analgesics, and (3) operative procedures because of maternal and fetal disproportion are factors of special importance in deaths due to asphyxia. The best management of the breech delivery requires skilled obstetric care. Haste, both in premature interference and in the actual delivery, is perhaps the greatest danger. Gentleness is one of the most important requirements. The relation of analgesia and anesthesia to fetal death is one which requires increasing attention. It is certain that prolonged anesthesia and the injudicious use of sedative drugs can so depress the respiratory center in the infant that severe anoxemia results. It is impossible to establish

arbitrary limits in this regard and more carefully controlled investigation is essential before we can discount the hazards to the infant in their use. Schreiber<sup>18</sup> has recently suggested a relationship between the anoxemia so produced and the development of permanent cerebral injury in infants who survive the extensive use of sedation during labor.

Pneumonia is most frequently responsible for neonatal deaths due to infection. The premature infant and the infant subjected to a prolonged labor with difficult delivery is liable to develop pneumonia. The immediate care of the newborn, particularly in regard to maintenance of body temperature and the establishment of aseptic nursery technic, are important factors.

Malformations are frequent factors in the production of fetal and neonatal deaths. Under our present knowledge there is little we can do to prevent them. It is important that they be considered as the cause of death only when they are of sufficient degree to be incompatible with the life of the infant.

The relative frequency of these factors in a large maternity service, as found at necropsy, is shown in the following data from the work of Adair and Potter.<sup>19</sup> It comprises 526 necropsies obtained in a total of 773 infant deaths occurring among 17,728 deliveries. In 245 neonatal deaths, malformations were found in 24.5 per cent and gross visceral and intracranial hemorrhage in 23.2 per cent. Anoxemia was the cause of death in 12.2 per cent. Death was due to infection in 4.4 per cent and miscellaneous causes were present in 3.6 per cent. In the remaining 32.1 per cent, no pathologic lesion was found. In the 281 stillborn infants the causes of death were anoxemia, 23.9 per cent; malformations, 12.4 per cent; hemorrhage, 9.2 per cent; infections, 1.9 per cent. In 52.6 per cent no pathologic changes were found at necropsy, a much higher percentage than among the infants dying during the neonatal period.

The maternal complications associated with neonatal deaths and stillbirths are often important contributory factors. In 32 per cent of the group studied by Adair and Potter, the complications of pregnancy or labor (exclusive of difficult or operative delivery) were considered as the probable cause of death. In 13 per cent complications were present, but a definite cause of death was found at necropsy. Toxemia and abruptio placentae or placenta previa are the most frequent in both groups. Their proper management should result not only in a decreased maternal mortality but also in a reduction of fetal deaths. The remaining complications are cord anomalies which include knots and loops of cord around the neck, as well as prolapse of the cord, and are in part preventable factors. Medical complications include such diseases as diabetes, heart disease,

<sup>15</sup> Holland, E., *Am. J. Obst. & Gynec.* 33:1, 1937.

<sup>16</sup> Ehrenfest, H., *Am. J. Dis. Child.* 43:427, 1932.

<sup>17</sup> Bundesen, H. N., Fishbein, W. L., Dahms, O. A., Potter, E. L., Wolke, W., *J. A. M. A.* 111:135, 1938.

<sup>18</sup> Schreiber, W., *J. Mich. State Med. Soc.* 37:145, 1938.

<sup>19</sup> Adair, F. L., Potter, E. L., Read before the Brooklyn Gynecological Society, Brooklyn, New York, February 4, 1938.

and hyperthyroidism. Syphilis is one of the most readily preventable complications if adequate pre-conceptional and antenatal care is practiced.

### CONCLUSIONS

I have attempted to outline briefly some of the more important factors associated with maternal and infant mortality. We have sufficient information to decrease materially the death rate in both groups. The application of this knowledge re-

quires: (1) Education of the general public to recognize the importance of early and adequate antepartum care. (2) Increased obstetric skill and judgment on the part of those practicing obstetrics. (3) Recognition of the dangers for both mother and infant inherent in obstetric interference. (4) More frequent use of transfusion. (5) More careful protection against infection. (6) Reduction of the number of abortions and proper management of those which do occur.

## THE STUDY OF MATERNAL AND FETAL MORTALITY IN INDIANA\*

This report is submitted for the Committee on the Study of Maternal and Fetal Deaths of the Indiana State Medical Association.† It was prepared in cooperation with the Bureau of Maternal and Child Health and the Bureau of Vital Statistics of the Indiana State Board of Health. This article was prepared for and under the direction of the Committee by James H. Hawk, M.D., Indianapolis.

Information obtained from death certificates alone was found to be inadequate to ascertain definitely the cause and contributory factors of death. Accordingly, a questionnaire was prepared. One of these was sent to the doctor who signed the death certificate for each maternal death.

The following information was obtained:

Number of Maternal Deaths	222
Questionnaires returned	143 (64.7%)
Number of live births	54,692
Number of twin pregnancies	596
Number of still-births	1,222
Number of confinements	55,318

From the 143 questionnaires on maternal deaths returned, we were able to gather the following figures:

Total questionnaires returned	143
Colored	11
White	131
Unknown	1
Primiparae	34
Multiparae	74
Unspecified	35

Additional information as to syphilis, hospitalization and post-mortem examinations is as follows:

Syphilis	
Negative Wassermann	28
Positive Wassermann	3
Died in Hospital	86
Autopsies	21

The actual causes of the maternal deaths reported were given as follows (Some cases had more than one cause given, such as abortion, hemorrhage and sepsis; thus the total of the causes given is greater than the total number of deaths reported.):

Sepsis	52
After Section	6
After vaginal or intra-uterine manipulation	14
After abortion	18 <sup>1</sup>

Abortions	37
Spontaneous	20
Criminal	15
Therapeutic	2
Hemorrhage	36
Placenta previa	3
Placenta accreta	2
Placenta abruptio	5
Abortion	3
Post-partum	10 <sup>1</sup>
Eclampsia	17
Embolus	16
Nephritis	15
Cardiac	13
Pneumonia	7
Toxemia	6
Hyperemesis	3
Ruptured uterus	2
Ectopic	2

A study of the relationship of Cesarean section to maternal mortality in the 143 returned questionnaires revealed:

Cesarean Section	21
Poro section	3
Section with definite contraindications	1
Hysterectomy for placenta accreta	1
Section after onset of eclampsia	2
Unspecified	14

Factors which may have contributed to the maternal deaths were given as follows:

Ignorance	19 <sup>2</sup>
Carelessness	18 <sup>2</sup>
Poverty	8 <sup>2</sup>
No prenatal care	26
Inadequate prenatal care	18
Adequate prenatal care	33
No physician	1

Two patients were delivered in Illinois and at least one was delivered in Kentucky and brought to Indiana hospitals where death occurred.

Diseases or accidents complicating the pregnancy and contributing toward death were as follows:

Pyelitis	3
Diabetes	3
Influenza	3
Epilepsy	2
Cardiac decompensation	2
Fibroids	2

\* This report covers a twelve-month period from November, 1937, to October, 1938, inclusive.

† Members of the Committee: Chairman, H. F. Beckman, M.D., Indianapolis; J. C. Carter, M.D., Indianapolis; Verne K. Harvey, M.D., Indianapolis.

<sup>1</sup> These figures represent the causes as described in the returns, but many returns stated only that the patient was septic or had hemorrhage; therefore the figures are probably too low.

<sup>2</sup> These figures, particularly as to "poverty" are grossly inaccurate because most of the returns had no indication of these three conditions, marked as such.



Coronary thrombosis (These patients were aged 26 and 36 respectively)	2
Cerebral hemorrhage	2
Hypertension	1
Kidney stone	1
Intestinal obstruction	1

The maternal mortality rate for the months studied was 4.05 per 1,000 live births. If we are allowed to correct this maternal death rate by considering maternal deaths minus all abortions and total confinements instead of live-births, the figure drops to 2.9.

It is interesting to note that only 6 patients were said to be toxemic; whereas 17, or 11.8% of the total, died in eclampsia.

Abortions account for 25.8% of the mortality. 40.5% of the abortions, or 10.4% of the total deaths, were due to criminal abortions.

Of the 143 maternal deaths reported, 36.3% of the cases were complicated by sepsis. Almost half of those described followed abortion, and in more than one-third of the cases, the delivery or puerperium was complicated by intra-uterine or vaginal examination. Sepsis following cesarean section accounted for 11.5%.

Hemorrhage was reported to have been excessive in 25.2% of the cases. Of those reported in detail (64% of the total reported as having had

hemorrhage), 43.4 had post-partum hemorrhage, 21.7% were due to abruptio placenta, 13% followed abortion, 13% were due to placenta previa and 8.7% were caused by acreta placenta.

Embolus was given as the cause of 11.2% of the deaths. 14.7% occurred following cesarean section.

As to syphilis, 9.6% of those mothers who died had a positive serologic test for syphilis.

A study of maternal deaths as to preventability disclosed that of the 143, there were 43 unpreventable. Fourteen were the result of criminal abortion and of the remaining 86, the available evidence suggests that they could have been prevented. However, they were not described in sufficient detail to make this final. Undoubtedly, some of the 86 were unpreventable.

If we can assume that of the 143 deaths, only 43 were unpreventable, then, of the 222 maternal deaths for this twelve-month period, 66.6 were unpreventable. Therefore the maternal death rate would be 1.21 per 1,000 live births. This figure is, of course, somewhat low and would indicate further that at least some of the 86 deaths were unpreventable. The irreducible minimum is probably about 2 per 1,000 live births.

A STUDY OF NEONATAL DEATHS IN INDIANA

(Also a part of the study for the Committee on Study of Maternal & Fetal Deaths)

The problems facing the Committee were:  
1. Why are so many babies born prematurely?  
2. Why are so many babies lost in their first month of life?  
3. What can be done to reduce this mortality?  
There was very little available information that

would answer these questions. Data obtained from death certificates alone was found inadequate. Accordingly a questionnaire was prepared. One of these was sent to the doctor who signed the death certificate for each baby living less than one month.

	Live Births	Actual Number Deaths	Total Reported	Unknown Gestation	5 mos. or less	6 mos.	7 mos.	8 mos.	9 mos.	Still- births
Nov. ....	4221	93	76	2	4	15	24	6	25	98
Dec. ....	4378	120	122	11	4	27	22	17	41	115
Jan. ....	4664	160	108	8	4	16	32	12	36	97
Feb. ....	4229	125	75	4	1	11	17	12	30	111
Mar. ....	4707	119	76	6	0	17	24	5	24	110
Apr. ....	4394	123	83	2	2	24	21	5	29	103
May ....	4625	123	94	10	5	19	17	10	33	102
June ....	4396	120	84	14	5	19	13	11	22	102
July ....	4795	107	80	4	5	15	21	5	30	106
Aug. ....	5013	137	89	10	1	16	22	17	23	92
Sept. ....	4636	95	67	9	3	9	14	9	23	103
Oct. ....	4634	136	77	9	3	10	13	11	31	83
	54,692	1,458	1,031	89	37	198	240	120	347	1,222

This table shows the actual number of fetal deaths in comparison to the number of replies to questionnaires and the number of still-births. It also shows the month of gestation at which the reported pregnancies terminated. The study covers 1,034 fetal deaths occurring between November, 1937, and October, 1938, inclusive.

Questionnaires returned totaled 70.7% of those sent.

The following information was obtained.  
Fetal deaths grouped by race:

White .....	980
Colored .....	47
Indian .....	1
Chinese .....	1
Unknown .....	2

Study for lues among colored babies:

No serologic test for syphilis.....	32
Negative serologic test for syphilis.....	15
Positive serologic test for syphilis.....	1

Colored deaths by month of gestation:

5th month.....	3
6th month.....	6
7th month.....	11
8th month.....	8
9th month.....	11
Unknown .....	8

Study for lues among white babies:

No serologic test for syphilis.....	766
Negative serologic test for syphilis.....	200
Positive serologic test for syphilis....	14 (6.5%)

The 14 luetic white babies were born at the following month of gestation:

6th month.....	2
7th month.....	5
8th month.....	4
9th month.....	2
Unknown .....	1

The actual or contributing causes of fetal deaths were found to fall into three large classes: 1. Ante-partum, 2. Intra-partum, 3. Post-partum. Therefore the cases reported were studied for the purpose of placing the individual cause in one of these three main groups. In some cases there was no cause given and in others, two or more were given. A single death, therefore, may be included in each of the three groups.

Extrinsic Causes	5 mos.			
	Total	8-9 mos.	6-7 mos.	or less known
Work .....	40	2	36	2
Fall .....	29	4	19	5
Overactivity .....	17	3	14	
Travel .....	12		9	2
Intercourse .....	9		4	3
Auto wreck .....	4	1	3	
Induced .....	4		2	2
Work and Intercourse.....	3		1	2
Accident unspecified.....	3		2	1
Mental strain .....	3		3	
Fight .....	2			2
Gunshot wound .....	1		1	
Catharsis .....	1			1
Frightened by firecracker.....	1		1	
Motorcycle riding .....	1			1
Punch in abdomen.....	1		1	
Horseback riding .....	1		1	
Total .....	132	10	97	18
			73.5%	

ANTE-PARTUM CAUSES

A study of all fetal deaths revealed that 389 were attributed entirely or partly to ante-partum causes or premature birth. The following table shows the causes with the total number of deaths attributed to each, and likewise the number of premature, term, or pre-viable infants dying of each cause.

The table shows a further division into extrinsic and intrinsic factors.

Intrinsic Causes	5 mos.			
	Total	8-9 mos.	6-7 mos.	or less known
Toxemia .....	49	18	28	3
Placenta Previa .....	30	7	20	1
Placenta Abruptio .....	18	4	14	
Eclampsia .....	15	5	9	1
Premature rupture of Membranes .....	14		14	
Debility (maternal) .....	12	4	6	2
Pyelitis .....	10	3	6	1
Toxemia with nephritis .....	9	4	5	
Endometritis .....	9		8	1
Habitual premature labors.....	8		7	1
Pneumonia .....	8	1	4	3
Fibroid .....	6	2	4	
Measles .....	5		5	
Flu .....	5	2	3	
Respiratory infection .....	4		3	1
Appendectomy .....	4	1	1	1
Cardiac decompensation.....	4	1	2	1
Gastro-enteritis .....	3		3	
Hyperthyroid .....	3	2	1	
Polyhydramnios .....	3	2	1	
Tuberculosis .....	3	2	1	
Cancer of cervix .....	2	1	1	
Epilepsy .....	2	1	1	
Placenta marginalis .....	2		2	
Placenta Abruptio and fall.....	2		1	1
Pneumonia and peritonitis.....	2		2	
Appendicitis .....	1		1	
Abdominal surgery .....	1			1
Cholecystitis .....	1		1	
Douching .....	1		1	
Contraction ring .....	1	1		
Cardiac disease .....	1	1		
Diabetes .....	1		1	
Double uterus .....	1	1		
Infantile Uterus .....	1		1	
Typhoid .....	1	1		
Hypertension .....	1	1		
Osteosarcoma .....	1		1	
Septicemia .....	1		1	
Toxemia and work .....	1	1		



Intrinsic Causes	Total	5 mos.			
		8-9 mos.	6-7 mos.	or less	Un-known
Placental disease .....	1	...	1	...	...
Maternal debility and stone in the common duct.....	1	...	1	...	...
Flu, pneumonia and placenta abruptio .....	1	...	1	...	...
Intercourse, mental strain and placenta previa.....	1	...	1	...	...
Endocarditis and nephritis.....	1	1	...	...	...
Hypothyroid .....	1	1	...	...	...
Abruptio and toxemia.....	1	...	1	...	...
Eclampsia and cerebral hemorrhage .....	1	...	1	...	...
20 lb. ovarian cystectomy.....	1	...	1	...	...
Cirrhosis of the liver, organic heart disease and chronic nephritis .....	1	...	1	...	...
Total Intrinsic Causes.....	256	68	167	5	16
	65.9%		65.2%		
Total Extrinsic Causes.....	132	10	97	18	7
	34.1%				
Total of All Causes.....	388	78	264	23	23
	45%	20%	68%	6%	6%

This group of deaths, attributed wholly or in part to ante-natal causes, was further studied for its relation to various other contributory factors. The contributory factors are here listed, showing the relation of the factor to the individual ante-partum cause.

SYPHILIS: 2		
Pyelitis .....	1	
Toxemia with nephritis .....	1	
INADEQUATE OR NO PRENATAL CARE: 31		
Inadequate Prenatal Care 11 (This does not mean that only 11 had inadequate prenatal care.)		
Work .....	2	
Auto wreck .....	1	
Overactivity .....	1	
Catharsis .....	1	
Decompensation .....	1	
Flu .....	1	
Gastro-enteritis .....	1	
Measles .....	1	
Prematurely ruptured membranes.....	1	
Toxemia .....	1	
No Prenatal Care 20 (This does not mean that only 20 had no prenatal care.)		
Travel .....	2	
Work .....	5	
Intercourse .....	1	
Overactivity .....	3	
Pyelitis .....	2	
Placenta previa .....	1	
Eclampsia .....	2	
Toxemia .....	3	
Tuberculosis .....	1	
CARELESSNESS: 12 (This does not mean that carelessness contributed to death in only 12 cases.)		
Tuberculosis .....	1	
Work .....	2	
Intercourse .....	1	
Overactivity .....	1	
Endometritis .....	1	
Placenta previa .....	1	
Placenta abruptio .....	3	
Travel .....	1	
Toxemia and nephritis.....	1	

POVERTY: 10 (This does not mean that poverty contributed to death in only 10 cases.)

Fall ..... 1

Work ..... 7

Overactivity ..... 2

IGNORANCE AND CARELESSNESS: 4 (This does not mean that ignorance and carelessness contributed to death in only 4 cases.)

Travel ..... 1

Work ..... 1

Catharsis ..... 1

Eclampsia ..... 1

IGNORANCE AND POVERTY: 5 (This does not mean that ignorance and poverty contributed to death in only 5 cases.)

Accident unspecified ..... 1

Gastro-enteritis ..... 1

Prematurely ruptured membranes..... 1

Work ..... 1

Toxemia with nephritis ..... 1

IGNORANCE: 4 (This does not mean that ignorance contributed to death in only 4 cases.)

Overactivity ..... 2

Contraction ring ..... 1

Eclampsia ..... 1

ERROR OF MOTHER: 1 (This does not mean that the mother erred in only 1 case.)

Toxemia ..... 1

CARELESSNESS AND POVERTY: 1 (This does not mean that carelessness and poverty contributed to death in only 1 case.)

Work ..... 1

There were 16 autopsies on babies dying of ante-partum causes. The causes given were:

Toxemia ..... 4

Fall ..... 1

Cancer of cervix..... 1

Endometritis ..... 1

Fibroid ..... 1

Polyhydramnios ..... 2

Pneumonia ..... 1

Placenta abruptio ..... 2

Intercourse ..... 1

Endocarditis and nephritis ..... 1

Habitual premature ..... 1

INTRA-PARTUM CAUSES OF DEATH

Intra-partum causes were entirely or partly responsible for 207 of the deaths reported.

	Total	Un-known	Month of Gestation		
			8-9	6-7	5 or less
Asphyxia .....	26	0	25	1	0
Birth trauma .....	169	10	152	7	0
Prolapsed cord ...	4	1	3	0	0
Cerebral hemorrhage	1	0	1	0	0
Cord around neck	6	1	4	1	0
Pituitrin .....	1	0	1	0	0
Total .....	207	12	186	9	0
	25%		89.8%		

This table lists the causes given, shows the total deaths attributed to each and the point in the gestation at which each infant was born.

Of the 207 deaths attributed to intra-partum causes, 5 were colored, autopsy was performed on 13 white and 1 colored, 20 mothers (9.66%) were known to have had syphilis.

This group was further studied for its relation to various other contributory causes. The contrib

utory factors are listed, showing their relation to the individual intra-partum causes.

IGNORANCE 2*	
Birth Trauma .....	2
CARELESSNESS 2*	
Asphyxia .....	1
Birth Trauma .....	1
POVERTY 2*	
Birth Trauma.....	2
IGNORANCE AND CARELESSNESS 1*	
Birth Trauma .....	1
NO PRENATAL CARE 8*	
Birth Trauma .....	7
Asphyxia .....	1
INADEQUATE PRENATAL CARE 6*	
Birth Trauma .....	5
Asphyxia .....	1
NO PHYSICIAN IN ATTENDANCE 3*	
Birth Trauma .....	3
IMPROPER DIAGNOSIS 12	
Patent foramen ovale.....	8
Birth trauma .....	8
Congenital heart .....	3
Birth trauma .....	3
Mitral stenosis .....	1
Cord around neck.....	1
BREECH PRESENTATION 27	
Prolapsed cord .....	2
Asphyxia .....	6
Cord around neck.....	1
Birth trauma .....	18
FACE PRESENTATION 3	
Birth trauma .....	2
Asphyxia .....	1
TRANSVERSE LIE 1	
Asphyxia .....	1
OCCIPITO-POSTERIOR 3	
Birth trauma .....	3
DIFFICULT LABOR 14	
Birth trauma .....	13
Asphyxia .....	1
PRECIPITATE LABOR 2	
Birth trauma .....	2
INDUCED LABOR 1	
Birth trauma .....	1
HIGH FORCEPS DELIVERY 6	
Birth trauma .....	6
VERSION 9	
Asphyxia .....	2
Birth trauma .....	7
SECTION 9	
Asphyxia .....	2
Birth trauma .....	6
Cerebral hemorrhage .....	1
FORCEPS 10	
Birth trauma .....	10

Deaths from intra-partum causes complicated by ante-partum causes totaled 23.

#### POST-PARTUM CAUSES OF DEATH

Post-partum causes were entirely or partly responsible for 267 of the deaths reported. The table lists causes and the point in gestation at which each infant was born.

\* These figures represent only those cases reported as such.

Extrinsic Causes	Total	5 mos.			
		8-9 mos.	6-7 mos.	or less	Unknown
Care Insufficient .....	9	7	2	....	....
Injured .....	4	2	1	....	1
Born in toilet.....	3	2	1	....	....
Smothered .....	2	1	....	....	1
Burned in Incubator.....	1	1	....	....	....
Delivered standing—head hit floor .....	1	....	1	....	....
Born in privy; ruptured cord with hemorrhage.....	1	1	....	....	....
	21	14	5	0	2
	8%				

Intrinsic Causes	Total	5 mos.			
		8-9 mos.	6-7 mos.	or less	Unknown
Atelectasis .....	60	39	14	3	4
Inanition .....	32	15	12	3	2
Hem. Dis. of Newborn.....	16	14	1	1	....
Jaundice .....	15	11	1	2	1
Pneumonia .....	10	7	2	....	1
Diarrhoea .....	9	3	2	4	....
Aspiration asphyxia .....	4	4	....	....	....
Debility .....	3	3	....	....	....
Malnutrition .....	3	2	1	....	....
Sepsis .....	3	3	....	....	....
Thymus enlarged .....	1	1	....	....	....
Congenital Cyanosis .....	1	1	....	....	....
Volvulus .....	1	1	....	....	....
Status lymphaticus .....	1	1	....	....	....
Pertussis .....	1	1	....	....	....
Pemphigus .....	1	1	....	....	....
Pyloric stenosis.....	1	1	....	....	....
Peritonitis .....	1	1	....	....	....
Infection face .....	1	1	....	....	....
Enteritis .....	1	1	....	....	....
Asphyxia pallida .....	1	1	....	....	....
Dehydration .....	1	1	....	....	....
Convulsions .....	1	1	....	....	....
	168	114	33	13	8
	63%				

Congenital Deformities	Total	5 mos.			
		8-9 mos.	6-7 mos.	or less	Unknown
Congenital defect, unspecified .....	30	24	4	....	2
Spina-bifida .....	8	6	1	....	1
Congenital heart .....	6	4	1	....	1
Monster .....	4	4	....	....	....
Hydrocephalus .....	4	4	....	....	....
Anencephalus .....	3	3	....	....	....
Absent abdominal wall .....	2	1	1	....	....
Cleft palate .....	2	1	....	....	1
Diaphragmatic hernia .....	2	1	....	....	1



<i>Congenital Deformities</i>	<i>Total</i>	<i>8-9 mos.</i>	<i>6-7 mos.</i>	<i>5 mos. or less</i>	<i>Un- known</i>
Atresia of bile duct and umbilical hemorrhage .....	2	2	...	...	...
Atresia bile duct .....	2	2	...	...	...
Achondroplasia .....	1	...	1	...	...
Imperforate anus .....	1	...	1	...	...
Esophageal tracheal fistula with pneumonia .....	1	1	...	...	...
Anomaly G. 1. tract.....	1	1	...	...	...
Absent spine and ribs.....	1	...	...	...	1
Multiple deformities .....	1	1	...	...	...
Mongolian idiot .....	1	1	...	...	...
Spina-bifida and hydrocephalus .....	1	...	...	...	1
Club feet .....	1	1	...	...	...
Absence of both kidneys.....	1	1	...	...	...
Hydrocephalus, hydro-nephrosis and phlebitis.....	1	...	...	...	1
Umbilical hernia .....	1	1	...	...	...
Embryonic kidneys .....	1	1	...	...	...
Congenital defects total.....	78	60	9	0	9
	29.21%				
Extrinsic causes total.....	21	14	5	0	2
	7.86%				
Intrinsic causes total.....	168	114	33	13	8
	62.54%				
Post-partum causes total.....	267	188	47	13	19
	30%	70%	18%	5%	7%

This group was further studied for its relation to various other contributory causes. The contrib-

utory factors are listed, showing their relation to the individual post-partum causes.

RACE	
Colored .....	14
White .....	253
SYPHILIS	
No serologic test .....	210
Negative serologic test.....	54
Positive serologic test.....	4 (all white)
AUTOPSIES	
Total .....	20
IGNORANCE* .....	1
CARELESSNESS* .....	2
POVERTY* .....	6
IGNORANCE AND CARELESSNESS*.....	1
IGNORANCE AND POVERTY*.....	4
CARE 23*	
No prenatal .....	12
Inadequate prenatal .....	5
No physician in attendance .....	6
IMPROPER DIAGNOSIS 9	
Patent foramen ovale .....	6
Congenital heart .....	3
LABOR 4*	
Precipitate .....	1
Difficult .....	3
DELIVERY 15*	
Version .....	4
Section .....	6
Forceps .....	4
High forceps.....	1

\* These figures represent only those cases reported as such.

This table shows the age at which death occurred in babies dying of all causes.

Age	<i>Ante-Partum</i>				<i>Intra-Partum</i>				<i>Post-Partum</i>			
	8-9 Mos.	6-7 Mos.	5 or less Mos.	Unkn.	8-9 Mos.	6-7 Mos.	5 or less Mos.	Unkn.	8-9 Mos.	6-7 Mos.	5 or less Mos.	Unkn.
Less than 1 hour....	8	11	2	1	29	...	...	...	18	2	1	...
1-12 hours.....	30	84	6	10	63	4	...	3	35	14	...	5
13 hrs.-1 day .....	16	42	...	...	39	1	...	3	24	5	1	...
2 days .....	7	20	...	1	22	1	...	1	18	1	...	6
3 days .....	5	8	...	2	8	...	...	...	16	5	1	1
4-5 days .....	3	6	...	...	12	1	...	3	19	4	...	3
6-10 days .....	2	7	...	1	5	...	...	1	15	5	...	2
10-20 days .....	1	5	...	1	6	1	...	1	26	9	...	10
20-31 days .....	1	1	...	...	...	...	...	...	14	3	...	1
Unknown .....	...	4	2	...	2	1	...	...	1	...	...	...
Total .....	73	188	10	16	186	9	0	12	186	48	3	28

Total of all figures in this table: 759. This represents the number of cases reported in detail. The figures given in this table do not total 862, the sum of the three main groups, due to an overlapping of causes as previously described.

INTERPRETATION

Study of the first table indicates the fetal deaths were well distributed as to point in gestation at time of birth. In studying the last table, it is seen that the majority of the deaths attributed to

ante-partum causes occurred within the first two days of life in babies of 6-7 months' gestation, whereas those dying of intra-partum causes were still lost in the first two days of life, but were of 8-9 months' gestation. The post-partum group shows a more even distribution from less than one hour to one month of age, but here again the great majority were 8-9 months babies. Study of the ante-partum table reveals that 388 or 45% of all causes given come under this heading. Of this group, 34.1% were extrinsic in

nature, while 65.9% were intrinsic. Of the 388 causes, a total of 68% were given for babies of 6-7 months' gestation and 65.2% of the total intrinsic causes were in this same group as to gestation. We can further say that of the 132 deaths from extrinsic ante-partum causes, 83, or 62.9%, were the result of work, overactivity, intercourse, or travel of one kind or another. 73.5% of the 132 deaths were at 6-7 months' gestation. Study of intrinsic ante-partum causes reveals 64.8% of mortality in this group attributable to the first nine causes listed, and of these, 66.2% were in the 6-7 months' group. It must be considered that 75, or 29.3%, were attributed to toxemia of various degrees.

Study of the intra-partum table shows that 207, or 25%, of total causes given, belong in this group. Of these, 85.5% occurred in babies of 8-9 months' gestation and were given as birth trauma and asphyxia.

Study of the post-partum tables reveals that 267, or 30%, of the total causes given, fall into this group. 78, or 29% of these were classed as congenital defects. 21, or 8%, were extrinsic in nature, while 168, or 63%, were of an intrinsic nature. As to gestation, 70% of the 267 were in the 8-9 months' group, and only 18% were in the 6-7 months' group. Congenital deformities amounted to 10.3% of the actual cases fully reported.

Let us now attempt to answer the questions faced by the Committee:

### 1. Why are so many babies born prematurely?

One has only to consult the table for ante-partum causes to answer this question. There were 258 babies among those fully reported known to be of 7 months gestation or less. This is 34% of the total cases for all causes fully reported. We see in the ante-partum table that there were 158 babies lost as a result of extrinsic causes and toxemia in some form. This represents 61.2% of the total premature cases fully reported.

### 2. Why are so many babies lost in their first month of life?

First, death occurs as a result of prematurity and, second, as a result of birth trauma and asphyxia, as seen in the intra-partum table. These last two causes total 177, or 23.32% of cases fully reported. Also, 10.3% of total cases reported had congenital defects.

### 3. What can be done to reduce this mortality?

In the first place, practically all of the babies lost from extrinsic, ante-partum causes and toxemic conditions, could have been saved if the mother had consulted her physician early in her pregnancy, received and followed advice as to excess activity, intercourse, travel and weight gain, and other factors leading to toxemic conditions.

In the second place, more careful diagnosis during the last month of pregnancy will markedly reduce the mortality due to birth trauma and

asphyxia. This last can possibly be reduced by 50%.

Lastly, mortality, the result of extrinsic post-partum causes, accounts for only 2.8% of deaths fully reported, and can be largely eliminated by adequate neonatal and intra-partum care. Mortality from intrinsic post-partum causes can be reduced somewhat by adequate neonatal care. The 10.3% mortality from congenital defects, of course, is untouchable.

Therefore, 555 or 58.7% of all neonatal deaths of less than one month are preventable, if we accept the supposition that those deaths, as just described, are preventable.

### SUMMARY

- 1,031 of 1,458 fetal deaths were reported on questionnaires sent to physicians. Of these, 759 were given one or more causes for death.
- The causes of death were divided into (1) Ante-partum, (2) Intra-partum, (3) Post-partum.
- The majority of fetal deaths in babies less than two days old were found to be the result of ante-partum causes in premature births, and of intra-partum causes in full term births.
- Premature births were largely due to extrinsic ante-partum causes.
- Birth trauma and asphyxia accounted for the majority of intra-partum causes.
- Most of those dying of post-partum causes were full term babies. In this group more than 35% of deaths resulted from congenital defects or extrinsic causes.
- It is shown that adequate prenatal, intra-partum and post-partum care will reduce the neonatal mortality.

### ABSTRACT

#### INDUCED MALARIA CAN CAUSE FALSELY POSITIVE SYPHILIS REACTION

Malaria, induced for the treatment of other diseases, can cause a falsely positive reaction to syphilis tests, S. F. Kitchen, M.D., Tallahassee, Fla., E. L. Webb, Atlanta, Ga., and W. H. Kupper, M.D., Chattahoochee, Fla., state in *The Journal of the American Medical Association* for April 15.

They made a systematic study of the Wassermann and Kahn reactions before, during and after twenty-five attacks of malaria for the treatment of nonsyphilitic patients with mental aberrations. The malaria was induced by allowing mosquitoes to bite the patients. Positive reactions were obtained in every case in which malaria developed clinically.

Seventy-two per cent of the positive reactions occurred during the third and fourth weeks following malarial inoculation. The duration of the "seropositive" (blood positive) period exceeded three weeks in 60 per cent of the cases and extended beyond four weeks in 48 per cent. Positive reactions were higher among women with malaria than men and among persons up to 35 years of age than older persons.



## BLOOD BANKS AND BLOOD PRESERVATION\*

MIER BIZER, M. D.

Lafayette

Within very recent years, the medical profession has developed a greatly improved method whereby the life sustaining fluid of the body can be given more promptly, more easily, and more safely. No longer should there be the dire need of a patient's family and friends being subjected to the psychic trauma of having an emergency call to come to the hospital to be typed and, perhaps, requested to give blood so that the critically ill patient may have a better chance to live. A blood bank would obviate this necessity.

Preserved blood is not a fad. It is the logical result of a persistent endeavor along a particular line of thought. Alexis Carrel started the trend when he successfully cultured a chicken heart in vitro. This epoch-making research fired the imagination of the men of science. They redoubled their intensity of pursuit. If only they could preserve still other tissues in vitro, what a marvelous opportunity would present itself to study the mysterious, vital processes that go on in a cell! And, it is from this auspicious beginning that we can point to three great, modern developments in the field of medicine: (a) the Lindbergh pump, (b) corneal transplantation, and (c) preserved blood.

Preserved blood has a very interesting history. Certain of the more outstanding chapters will be mentioned. Although the idea is known to have existed during the World War, it was not studied thoroughly and scientifically and soon was forgotten.

Eleven years ago, Dr. S. S. Yudin, director of a large Emergency Hospital in Moscow, became interested in the idea of preserving blood, over a period of time, for future use. He and his co-workers began their research by studying the applicability of cadaver blood for transfusions. Laboring under the false proposition that at the time of death the blood is loaded with the toxic products which caused such death, they diligently set out to find the truth. After several years of intensive experimentation on dogs, they came to the following conclusions:

1. That massive doses of cadaver blood can be used without toxic reactions.
2. That cadaver blood was more efficient in causing the recovery of exsanguinated dogs than was blood drawn from living animals.
3. That bacteriological and serological tests should be run on all bloods as safety factors.
4. That both the number and the severity of reactions due to transfusion were reduced.
5. That cadaver blood had the property of "dis-

agulation"; hence, very often, one need not use any anti-agglutinin.

6. That blood drawn from the jugular vein of a cadaver up to eight hours post mortem was sterile.

7. That five hundred cc. of cadaver blood will raise the hemoglobin percent of an adult, on the average, nine to ten points.

The next chapter was written in the United States, at the Cook County Hospital, in Chicago. Here was perfected a method whereby blood taken from living individuals might be preserved. So successful and satisfied were the originators of this technique of transfusion that it has supplanted all others and is now the only method used in that hospital. Also, there and with them originated the name "blood bank." At first thought one might suppose that this term was used to popularize this form of transfusion. However, it is very apt terminology. In Russia, only cadaver blood was used; and, when the supply ran low, they merely bled another cadaver. Thus, donors, as we know them, were unnecessary. However, when living donors are used, an effective system had to be established whereby an abundance of blood always would be on hand. To maintain such supply, the originators borrowed the idea of credits and debits from financial banks. Hence, if you donated five hundred cc. of blood and put it into the blood bank, you were credited with it; and, subsequently, when and as you took out that amount, you at once were put on the debit side of the ledger. Just as you can not exceed your reserve at your money bank, so, neither can you draw from the blood bank when your credit has been exhausted, except in dire emergency. Thus the term "blood bank" aptly fits the procedure. Besides making blood immediately available at any time, blood banks make the process of transfusion much more simple.

### SOURCES OF BLOOD

There are various ways in which blood can be accumulated. One source is from hospitalized patients who are in need of a therapeutic venesection, as might be indicated by cardiac decompensation or excessive elevation of blood pressure. However, these donors must be free from infections, from uremia, and from toxemia. According to Fantus of the Cook County Hospital, practically all patients in need of digitalis should have a preliminary abstraction of blood to unload the heart before stimulating it.

Another source could be and is from voluntary donors who present themselves and are in good health and can afford to give a definite amount of

\* Presented before the Medical and Surgical Staff, St. Elizabeth Hospital, Lafayette, November 1, 1938.

their blood without endangering themselves, thus creating a credit in the bank for future withdrawal by themselves, their relatives, or their friends.

The donors should not have eaten anything for at least six to eight hours preceding the withdrawal of blood. There are two reasons for this:

1. It is necessary to avoid the physiological lipemia that occurs after ingestion of food, as it interferes with the reading of serological tests.
2. There is danger of anaphylactic shock in allergic patients.

A fatality has been reported as resulting from the administration of the blood of a donor who had eaten eggs for breakfast, about two hours before the transfusion. The recipient, who was allergic to eggs, promptly died in spite of excellent emergency treatment. Although this is a fairly rare combination of conditions, still it must be kept in mind.

Donors should not have imbibed alcoholic beverages for at least six to eight hours preceding the withdrawal of blood, since false negative readings have been obtained on serological tests.

Another source of blood is from the ante-partum woman. She is asked to come into the hospital about two weeks before term. This blood is put away for her in case she needs it during or after her delivery. However, if she does not require it at that time, then the blood is put into the general bank, again as a credit for future withdrawal.

Mothers whose children are ill with an infectious disease could do nothing better than to give of their own blood so that their children may be spared the danger of cross infection. Although one needs only about twenty cc., it is just as easy to take one hundred and twenty cc. The excess blood may be converted into convalescent serum and deposited in the bank.

In elective surgical cases, no greater precaution could be made than that of having the patient deposit five hundred cc. of his own blood in the bank; thus he establishes a credit for a possible hour of need.

#### CARE OF BLOOD

Blood is drawn and allowed to run into two percent sodium citrate solution. Fifty cc. of two percent sodium citrate is used to five hundred cc. of blood. When the desired amount has been secured, the blood that remains in the rubber tubing is allowed to run into two sterile test tubes. This blood is typed and tested serologically and bacteriologically, and a sedimentation rate is run. A rapid rate indicates an unhealthy donor. Such blood is discarded.

The citrated blood is placed in a refrigerator at once and is kept at two to four degrees centigrade until ready for use. The average time that blood can be stored is from two to four weeks. However, if laking, or hemolysis, occurs before this time, the whole blood should not be employed, although the plasma may be salvaged and used as

non-specific serum. When obtaining blood from donors, one should question them whether they ever have been ill from an infectious disease and when, with the thought in mind of separating the plasma to use it as convalescent serum.

The procedure for obtaining preserved blood from the bank is, first, to secure five cc. of blood from the patient for typing. Then a requisition is made for the quantity and type of blood needed. The preserved blood is gently mixed, and a 5 cc. specimen is withdrawn under sterile conditions for evidence of possible hemolysis which could not have been seen before mixing. The blood now is cross-matched, donor's cells against patient's serum and patient's cells against donor's serum. If the blood proves compatible, it is examined for the presence of clots and then is strained through a specially prepared piece of bolting cloth, and an equal quantity of physiological solution of sodium chloride may be added to the strained blood. It next is warmed to room temperature and then is ready for use. The blood is given at the rate of forty to sixty drops per minute.

It has been found wise to give a small intravenous injection of physiological saline preceding a transfusion. This is accomplished by arranging flasks in tandem, using the same procedure as in setting up a venoclysis.

#### REACTIONS, THEIR PROPHYLAXIS AND TREATMENT

According to the workers in Russia, they have had only five percent reactions with their cadaver blood and twenty percent reactions with citrated blood. Reactions often run as high as fifty percent in certain institutions in this country with the use of citrated blood. Since the establishment of the blood bank, the percentage of reactions has dropped materially.

Of course, the salient point in the prevention of reactions is the use of compatible blood. Other points are the scrupulous attention to the proper rinsing of the tubing with freshly distilled water, the proper cleansing of the needles and adapters, and the careful draining of all pieces of equipment used. If any of these are permitted to remain wet for even a few hours, enough pyrogen possibly could be produced by microbial growth to produce a reaction.

Rapid injection may cause death by "speed shock," but the slow method of injection, drop by drop, is of no danger even in diseased conditions of the heart or lungs.

Early signs and symptoms of reactions are: uneasiness in the chest, pericardial fullness, difficulty in breathing, restlessness, anxiety, generalized painful tingling, excruciating pain in back, especially in the lumbar region, fullness in the head, the sensation of marked flushing of the face, and a sudden rise in pulse rate and temperature. There may be signs of shock, such as a cold, clammy skin, or a feeble pulse, nausea, and vomiting. These signs and symptoms occur early, often before the patient has received but slightly more than one



hundred cc. The patient should be carefully watched during the time of injection, and if any of these signs or symptoms appear, then the transfusion should be stopped immediately.

Failure to recognize these early symptoms may be responsible for a fatal result. Fall in blood pressure and impaired heart action because of insufficient return of venous blood to the right side of the heart will result in cyanosis, with dyspnea and anuria dominating the picture. It is claimed that the best remedy for such a reaction is the immediate infusion of compatible blood.

Another type of reaction is called the delayed reaction. This occurs up to as late as an hour or more after the blood has been injected. There is a severe chill and a sharp rise in temperature which may be followed by hemoglobinuria and oliguria. In such reactions medication should be given for the purpose of alkalizing the urine, as it has been found that hemoglobinuria and oliguria do not occur when the urine is alkaline.

When these rules successfully are enforced, there have been practically no reactions directly due to preservation technique. Untoward sequelae now occurring are chiefly autogenous reactions, i.e., due to the patient's condition.

Preserved blood can be employed in various forms. The majority of it is used as citrated whole blood. However, if it is known that the donor recently has had an infectious disease, the R. B. C. may be allowed to separate from the plasma by sedimentation. The plasma is decanted and is held in readiness to be used as specific convalescent serum. The R. B. C. are suspended in an isotonic solution of saline. This erythrocytic suspension is useful in those anemias which are characterized by no marked deficiency of plasma proteins, such as in carbon monoxide poisoning. At the first sign of hemolysis of the blood, the plasma should be collected. This non-specific serum is very useful in the treatment of shock or burns.

Although the idea of blood banks and blood preservation is relatively new, it has proved its worth to the complete satisfaction of its users. Other hospitals in Chicago have adopted this system, some cooperating with the Cook County Hospital, others establishing their own blood bank.

Clinical data concerning extensive experimentation with preserved blood, outside of Russia, has not found its way into the literature in many theses; accordingly many academic questions must go unanswered at this time. Clinicians, however, have found this method of transfusion to be very advantageous and are adopting blood banks as another weapon in their armamentarium. Further progress is most promising.

A short resume of three cases is reported from the St. Francis Hospital in Evanston, Illinois. The staff of that hospital believes that these cases exemplify the type of emergency in which the blood bank was a life saver.

It is estimated that, in the past year, the lives of twenty patients have been saved there, only because blood was immediately available when needed.

CASE I. The patient was a forty-two year old woman who, forty-eight hours after a cholecystectomy with a transduodenal removal of a gall stone from the ampulla of vater, suddenly went into extreme shock, characterized by rapid, thready pulse, air hunger, anxiety, and cold sweat. Exitus seemed imminent within the next few hours. The patient immediately was transfused with five hundred cc. of whole citrated blood. Within ten hours the patient showed marked improvement. Recovery was uneventful.

CASE II. The patient was a twenty-six year old man who was in an automobile accident. He sustained severe lacerations of his right arm, both ears were almost amputated, his mandible was fractured in two places, and there were deep lacerations in his scalp. He was in extreme shock, almost pulseless, and semi-conscious. Glucose was started immediately, and, as soon as he was typed and cross-matched, five hundred cc. of whole citrated blood was administered. The physician in charge of this case said: "I am certain that the blood transfusion saved this man's life, although I doubt if it was worth saving."

CASE III. This patient was sixty years old, a prominent business man in Chicago. He was brought to the hospital following an automobile accident. He was found to have a fractured skull, almost complete avulsion of the scalp, and fractures of left arm and left leg. He was in extreme shock. His pulse was thready and rapid, and his skin was clammy. Blood loss was severe, and his condition was desperate. Within fifteen minutes, citrated whole blood from the bank was running into the patient's veins, and the response was gratifying.

In each of these cases the immediate introduction of blood acted as a life saving measure. In one instance, that of case number two, no relatives or friends could be found for two days, and blood was unobtainable from any one. Had there not been a blood bank he would have been doomed. Common indications for blood transfusion at this hospital are: (a) shock; (b) hemorrhage; (c) secondary anemia when the hemoglobin loss approaches between forty to sixty percent, according to the clinical condition of the patient; (d) in cases in which there is prolonged feeding per vein; here the plasma proteins are reduced, and a transfusion is indicated every four or five days; and (e) in patients who are scheduled for major surgery who are sixty years of age or over and who are not considered excellent risks. Transfusions in these cases may be given pre-operatively, during the operation, or post-operatively.

## TUBERCULOSIS IN CHILDHOOD

The fifth of a series of articles on Child Health  
sponsored by the Indiana Pediatric Society

Tuberculosis is a specific, infectious disease, caused by the tubercle bacillus. It is readily transmitted from one individual to another and is no respecter of persons, as individuals of all ages and in all walks of life are prey to its infectiousness. As a cause of death it ranks fourth in the United States, yet it is a curable and preventable disease. Modern treatment has greatly mitigated its danger, but to be treated it must be recognized and this recognition must be made before the disease process has overwhelmed the individual. Therefore, in its early diagnosis and prevention lies our hope of its ultimate eradication.

There are two types of tubercle bacilli capable of producing clinical tuberculosis in man—human and bovine. The human type is the one most frequently encountered. It is transmitted directly or indirectly from one individual to another and may attack any tissue of the body. Because it may remain alive and virulent in dried sputum for long periods of time, hygienic measures for its control are of prime importance. The bovine type bacillus is found primarily in cattle but may be transmitted to man through dairy products and is capable of producing the same disastrous consequences as the human type.

To contract tuberculosis, a child must come in contact with the tubercle bacillus. It is not true that one inherits the disease. However, it may be acquired under circumstances that give rise to such a misapprehension. Tuberculosis runs in families not through hereditary predisposition but by intimate personal contact with some infected member of the household, such as a parent, nurse, servant, relative or frequent visitor, who may be unaware that he is infected. Intimate contact such as occurs between a diseased mother and her child always results in the infection of the child. There seems to be a direct relationship between the size of the infecting dose and the frequency of its repetition with the likelihood of infection and the severity of the disease. The more casual the contact the less likely is infection to occur.

There are numerous pathways by which the tubercle bacillus gains access to the body, the most common being either by breathing or swallowing the organisms. There seems to be little doubt that inhalation is the most common means of acquiring human tuberculosis. In coughing, spitting and sneezing, small droplets of tubercle laden fluid are sprayed into the air which may be inhaled and thus deposited on the respiratory membranes of people in close contact with an infected person. In addition, the human tubercle bacillus may remain alive in dried sputum long enough to be-

come a part of the dust present in a room, and so be inhaled by, or introduced into the mouths of children by their hands or toys as they crawl about the floor.

While it is true that primary tuberculosis of the lungs usually results from the direct implantation of tubercle bacilli on the lung tissue itself, by inhalation, it may develop after the organism has been introduced into the gastro-intestinal tract. It is mainly by this latter route that bovine tuberculosis infects man, being ingested by way of infected milk, butter and other dairy products derived from tuberculous cattle.

When the tubercle bacillus gains access to the body, it sets up a characteristic reaction at the site of first penetration. From this focus the bacilli progress through the lymphatic channels toward the lymph nodes, causing them to become swollen and inflamed. This process is the characteristic infection of childhood and is called the primary complex.

The symptoms associated with the primary complex are quite trivial in the majority of cases. As a rule, the symptoms associated with tuberculosis in the public mind, such as under-nutrition, night sweats, cough, sputum, undue fatigue and impaired general health, are not apparent. At times, a minor gastro-intestinal disturbance or failure to gain weight may be noticed, but more often one is entirely ignorant of the fact that he has become infected until the situation is accidentally discovered. In infants, acute symptoms are more often present, consisting of fever, loss of appetite, pallor, prostration, cough and abdominal distress—all of which tend to disappear in time, provided there is no re-infection. Such children are not usually infectious to other people.

The immediate outlook of the primary infection is good, irrespective of whether the disease is acquired in infancy or later. The death rate for this type of tuberculosis is quite low. The body apparently has a high resistance to tuberculosis when it is first contracted. However, the ultimate outlook is quite uncertain. For some unknown reason, the human body can experience and heal the primary complex only once. Thereafter, successive re-infections are prone to produce more serious and often fatal forms of the disease. With repeated infection, or the breaking down of the early infection, the child may develop other and more serious forms of tuberculosis in later life.

The location of the primary complex is usually in the lungs, even when the organisms of disease are not inhaled, as they may reach the lungs from the gastro-intestinal tract by way of the blood and lymphatic vessels. It is characteristic of the primary complex that the process may be far more



conspicuous in the lymph nodes than at the site of original infection. The original focus may heal promptly, whereas the lymph nodes may become the site of an extensive tuberculous inflammation, or the body may wall off the infection inside the lymph node by surrounding the living organisms with a protective layer of calcium which keeps them from being disseminated in the body but does not destroy them. This is termed arrested tuberculosis. It is possible for an arrested tuberculosis case to become activated when body resistance is lowered, which causes the protective wall of calcium to be absorbed, thus liberating the organism.

Should calcification not take place, an abscess may form in which the bacilli multiply rapidly, or are destroyed, depending on the individual's ability to combat the infection. If an abscess is formed which does not heal, it may extend directly to adjacent structures, or rupture into the blood and lymphatic circulation, pouring large numbers of tubercle bacilli into them. Thus the organisms may be carried to structures far from the original site of infection where they lodge and multiply. It is in this manner that the fatal types such as miliary tuberculosis, tuberculous meningitis, and tuberculosis of the kidneys, liver and spleen are produced. The tuberculous abscess may also rupture directly into the bronchi, causing an overwhelming dose of the bacillus to be thrown loose in the lungs. It is thus that a well-localized infection may be widely disseminated in the lungs. This is called the adult type of tuberculosis.

Adult tuberculosis is a term describing the disease and not the age of the individual, as children can and often do develop this serious and often fatal form. It is generally believed that adult tuberculosis occurs as the result of re-infection from an outside source or from the fresh dissemination from a source within the body, super-imposed on the primary type complex. It is at this stage that the commonly known symptoms of the disease appear.

The first step in a physician's search for tuberculosis is the taking of a careful history of the individual, in which special emphasis is laid upon the possibility of any direct or indirect contact with the infection. Following this he makes a thorough physical examination which may not reveal the presence or location of the disease, particularly in children. While he may discover nothing definite by this means, a contact history, or the presence of a suspicious symptom or physical finding such as an enlarged lymph node will indicate to him the desirability of further diagnostic procedures.

Laboratory examination of sputum and bowel content for the organism is helpful. The finding of the tubercle bacilli in the sputum or bowel contents is positive proof of the existence of an open tuberculous infection. The absence of tubercle bacilli in body discharges does not indicate freedom

from the disease, as the tubercle bacilli may not yet have been liberated from the original tuberculous focus.

As the tubercle bacillus grows and multiplies, it elaborates as a by-product of its growth a substance called tuberculin. Within a period of weeks, the body becomes super-sensitive to this substance, which fact is useful in determining the presence or absence of tuberculous infection as this sensitivity can be precisely measured by various skin tests. All these tests are performed by the introduction of small quantities of tuberculin into the skin by one means or another. The most accurate is known as the Mantoux reaction.

#### THE MANTOUX TEST

The Mantoux test is performed by the hypodermic introduction of specific quantities of tuberculin into the skin. If the test is negative, there is no noticeable change. If positive, within 48 to 72 hours marked swelling and redness occur at the site of injection. There are few tests in medicine as exact as the Mantoux reaction. This is particularly true during infancy, as the positive reaction is conclusive evidence of the presence of an active tuberculous process. The Mantoux test is so simple, inexpensive and accurate in distinguishing infected from non-infected individuals, that it should be widely used in public health work. If the test is negative, it proves that the individual does not have tuberculosis. If the test is positive, he definitely has a tuberculous infection; however, no indication is given as to the activity, location, or how recent the infection may have been. These facts must be determined by other means. A negative test is many times of more importance than a positive because it eliminates tuberculosis as a possible cause of disease.

Inasmuch as most tuberculous infections occur in the lungs, the x-ray has become a standard diagnostic procedure as it is possible in most cases to visualize with startling clarity the exact location, extent of involvement, and degree of healing of the tuberculous process.

Occasionally, when the Mantoux reaction shows positive, no x-ray evidence of tuberculosis can be found in the lung. This is due to the fact that the lesion may be so small as to defy discovery by x-ray, or because the primary complex may have occurred elsewhere in the body, particularly in the gastro-intestinal tract.

In the final analysis, the physician's diagnosis of tuberculosis is not based upon any single diagnostic circumstance, physical finding or procedure but upon a careful evaluation of the composite picture thus obtained.

The fatality of tuberculosis follows a definite pattern throughout life, being higher in infants under one year than any other period in childhood. This is not due to increased susceptibility in the infant, but to the unavoidably intimate contact with an infection in those who may be responsible for its care. The fatality rate falls to a minimum

at 5 years, rises rapidly during puberty and never subsides to the level that prevailed during childhood. The greatest toll is exacted between the ages of 15 and 45 and is greater in girls than boys from the age of puberty until 30, after which the reverse ratio is established.

Individual susceptibility to tuberculosis remains more or less the same, the world over, but the incidence varies in direct ratio to the possibility of contact. Possibility of contact is fostered by overcrowding and unhygienic living conditions. This is well illustrated by the fact that tuberculosis is more common in urban communities, and among dark-skinned races.

The treatment of tuberculosis is a highly technical, medical problem, and is best left in the hands of a competent physician. However, its prevention and control is not only of medical concern but a problem to be dealt with by the entire community. Every individual, whether he be a physician or layman, can do his part in eradicating the infection.

Of basic significance in any attempt to control tuberculosis is the discovery of all known sources of infection. Every healthy person should be guarded from contact with the disease. It is equally important to protect a victim from further

exposure. Diseased persons should be isolated. Most particularly an infected parent should not be allowed to remain with children. Whenever a case of tuberculosis is discovered, it is the duty of the physician and of the entire community to see that every person in contact with that known case of infection is thoroughly examined and proved free from infection.

With rising social and economic standards we can anticipate a marked decrease in the occurrence of tuberculosis. Better housing conditions will help eliminate the spread of infection caused by crowded living quarters. Tuberculin testing of cattle and pasteurization of dairy products can, if generally applied, eliminate bovine tuberculosis.

A program of routine Mantoux testing in public schools has much to recommend it as it gives us a means of discovering hitherto unsuspected sources of infection, and opportunity to apply early treatment to infected individuals who are unsuspecting victims of the malady.

Recognition by educators that tuberculosis is a preventable and curable disease has already done much to control the infection, and the continued cooperation of physicians, teachers, and the community at large can eventually eliminate tuberculosis.

#### WARNING ISSUED ON DANGERS OF ORAL POLLEN PREPARATIONS

##### Chicago Society of Allergy Advises Against Use in Hay Fever Treatment

Warning against the use of oral pollen preparations in the treatment of hay fever is contained in a resolution passed by the Chicago Society of Allergy and in an editorial in *The Journal of the American Medical Association* for March 25.

*The Journal's* news columns report that "The following resolution has been adopted by the Chicago Society of Allergy: The members of the Chicago Society of Allergy, partly from their own experience and partly from a survey of both the published and some of the unpublished experimental and clinical results of oral pollen therapy, believe that the evidence of beneficial effect is at present not sufficient to warrant the commercial promotion of material for oral pollen therapy.

"Because of their controversial and contradictory nature, the published results of oral pollen therapy are inadequate to justify the commercial promotion of such a product. In addition our investigation indicates that many men who have used oral pollen therapy have failed to publish their work because of the unsatisfactory results obtained.

"We therefore urge that the commercial promotion of oral pollen therapy should be deferred in the interest of the public and of the general practitioner until further experimentation now in progress has been reported."

In an editorial *The Journal* says:

"Early last year *The Journal* published a statement from the Chicago Society of Allergy in reference to oral pollen preparations placed on the market by some pharmaceutical houses. The Chicago allergists urged others to sound a note of warning not only because of the probable numerous disappointments which might occur following the use of oral pollen preparations but also

because of the possible dangers inherent in any new and unproved method of treatment.

"A year previously *The Journal*, in *Queries and Minor Notes*, emphasized that self-administered treatment of this type is likely to lead to disappointments.

"The society is to be commended for its stand against the exploitation of a product for oral administration in the treatment of hay fever which may be not only not beneficial but a decided economic loss to the patient.

"The difficulty of regulating dosage because of the difference in rate of absorption from the gastrointestinal tract alone is a serious objection to this mode of treatment. It will require considerable evidence to show by passive transfer work that pollen is absorbed in the doses intended.

". . . The Council on Pharmacy and Chemistry of the American Medical Association has accepted no pollen preparation proposed for oral administration."

#### AMERICAN OPHTHALMOLOGICAL SOCIETY

"In June of this year the American Ophthalmological Society will celebrate its seventy-fifth anniversary," *The Journal of the American Medical Association* for April 15 says. "On June 7, 1864, this society, the first in the United States devoted exclusively to ophthalmology, was formed. That first meeting was held at the New York Eye Infirmary with eighteen in attendance from New York, Boston, Philadelphia and Poughkeepsie. The society has always stood for the highest ideals in practice of medicine. Its imminent anniversary celebration serves to emphasize the increasing maturity of American scientific medicine."



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MAY, 1939

## Editorials

### ALLERGY

Physicians long have recognized the fact that certain drugs, foods, and many other things have a most unhappy effect upon some patients. More than forty years ago in the lecture room of an Indianapolis medical school the professor of therapeutics recounted the then inexplicable action of these materials on some patients. Then the term *idiosyncrasy* was used to cover all these unusual reactions. Since that time, much research work has been done; many laboratories and private groups have recorded their findings in these cases and the general term *allergy* has been applied to most of them. As a result of these findings, many cases—long obscure as to the origin of their difficulty—are now amenable to treatment, and treatment varies with the nature of the etiology of the condition.

The study of allergy has been of very great benefit to the profession; it has resulted in the control, even in the complete relief of many bodily ills that long have perplexed us. Yet this allergy thing undoubtedly is grossly overdone. Not every patient that enters the office should have a "reaction test," as some physicians term it; all disease is not due to an allergic condition. It is difficult to accept the idea that because a patient is allergic to a certain food, drug, or what-not, he must be desensitized. Several years ago, in conversation with a physician who opened one of the first allergy clinics on the West Coast, he told of a man who knew that he was sensitive to clams and, because that delectable morsel was a gastronomic favorite, he asked that young authority how he might proceed to become desensitized. While ad-

mitting that this was possible, the physician suggested an easier way out—to quit eating clams! So it is with many of our allergies; by a process of avoidance, one may expect to be free from the ill effects following a violation of allergical law. However, there are forms of allergy that even a strict adherence to diet will not control; there are allergies that are very hard to avoid, dietetically. For example, desensitization is necessary for folks who are allergic to milk and eggs, articles of food that are so commonly used in cooking.

The study of allergy has reached almost monumental proportions. There are clinics devoted wholly to this type of affliction, and many of them are doing excellent work. As a matter of fact, the medical profession as well as the public is allergy-minded, and allergical factors are sought in the establishment of many diagnoses.

Rather often THE JOURNAL has commented on the allergies of cosmetics, a condition that was not generally recognized a few decades ago; now it is commonly met and recognized.

While our present knowledge of allergies has in no sense revolutionized the practice of medicine, and while we do believe that it is over-emphasized in many quarters, we still maintain a wholesome respect for the allergies, conditions with which we are constantly called upon to deal.

### A. M. A. FELLOWSHIP

It has been pointed out on numerous occasions that there is a great difference between a *member* and a *fellow* of the American Medical Association. All members of county medical societies are members of the American Medical Association, automatically. On the other hand, a *fellow* of the American Medical Association is a member who has made application for fellowship and has paid the fee of eight dollars which includes the annual subscription to *The Journal of the American Medical Association*.

In 1938, the 3,087 members of the Indiana State Medical Association were members of the A.M.A. A little more than half of these were fellows, the number being 1,596. In addition, 664 of our members were subscribers to *The Journal of the A.M. A.*, and there is no reason why this group should not apply for fellowship since they already are paying the necessary dues when they subscribe for *The Journal*; this would bring Indiana fellowship in the A.M.A. to the sizable total of 2,260. At present, 55% of the physicians in Indiana receive *The Journal of the American Medical Association* which is, without doubt, the best medical magazine published in any country and in any language. This percentage is based upon the total number of physicians in Indiana; actually a much higher percentage of our Association members receive the magazine. It may be noted here that 994 Indiana physicians are not members of our State Association. Some of these are not eligible for membership, though probably more than half

of them should be in organized medicine and probably would be if they were properly approached.

The present concern is support of our parent organization, a support that certainly is merited. At this time, solidarity is a prime essential. We have been assailed from all quarters and even have been indicted by a Federal body. "Medicine at the cross roads" has become a trite saying. We still are standing at the "cross roads" and the only way that we can move forward and in the right direction is by presenting a solid front to our foes. The first step, of course, is organization, and that means the active support of every member of the medical profession who is interested or can be made to become interested in the future of his profession. It means, also, that he must be a member not only of his county and state organization but he must be a fellow of the American Medical Association.

A considerable number of Indiana physicians will attend the St. Louis session of the American Medical Association, May fifteenth to nineteenth. St. Louis is but a few gallons of gas from most any point in Indiana, and it will draw many Hoosier medics. Your 1938 State Association membership card will "get you in," but you cannot register, get the official badge, etc., unless you have the A.M.A. fellowship card. Better be forehanded and provide yourself with that particular card before you leave home. Your local county medical society secretary will take care of the matter for you.

Whether or not you plan to go to St. Louis, why not make application for fellowship in the A.M.A. right now? This applies particularly to the 664 Hoosier subscribers to *The Journal of the A.M.A.* who already are paying the necessary fee. Indiana should be well up on the list of the A.M.A. fellowship rolls.

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## COSMETIC PROBLEMS

Quite some time ago we commented on certain phases of medical problems arising from the use of various cosmetics. Some of these were allergic in character, while some were due to the irritant properties of the cosmetics used. It would seem futile to persuade milady that the beauty of the natural skin is far superior to that of the "made" variety, hence it appears that the answer lies within the medical profession. What shall we do to correct the many evils following the use of some cosmetics that are prolific trouble makers?

In the past few weeks we have been consulted by no less than five patients, each of whom has noted a very undesirable condition of the skin about certain facial areas, chiefly about the eyes. These conditions range from a simple dermatitis to one assuming every appearance of true eczema. One case, in particular, showed a scaly condition of the skin all about the eyes, presenting a marked

redness, together with numerous dandruff-like particles, so noticeable as to attract attention at a considerable distance. This patient was in her late twenties and was very much perturbed over her facial appearance. She had presented herself with a complete layout of "makeup" on her face, and she had recently had her hair dyed. On questioning, we elicited the information that she has used at least three varieties of cosmetic preparation on her eyebrows and eyelashes and they certainly showed it! Following the dyeing of her hair she had used some sort of preparation said to add "lustre" to the hair. Whether it was due to this preparation we do not know, but her scalp showed numerous blotches which we determined were due to the preparation used. When it was suggested that her trouble was due to an overdose of cosmetics, some of which have been tabooed by the U. S. Pure Food and Drug laws, she opined that we were the third doctor that had told her the same thing and that she would seek medical advice elsewhere, to which program we most heartily agreed.

Now comes Dr. C. C. Higgins, of Cleveland, addressing the Midwest conference of the American College of Surgeons, who states that the painting of the finger nails and lips often proves a handicap to physicians, particularly in the matter of determining the lack of the proper vitamins. We well recall the days when it was possible to gain valuable clinical information via the finger nails and the lips, but try to do it today! The only way out is, of course, the laboratory blood check. The only ray of sunshine for us, it seems, is the fact that styles run their cycles and we look forward to the day when we will be able to view the feminine skin *au naturel*.

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## COMPULSORY VACCINATION

It long has been recognized that the only method by which smallpox can successfully be controlled is by universal vaccination. With this in mind, health authorities long have waged a battle against this disease and have succeeded in controlling every epidemic, *after a time*. Quarantine measures are helpful, as are other regulations regarding the congregating of people but, after all, vaccination is the one thing that brings about results.

When an epidemic breaks out, such as the one experienced in our capital city this past winter, most citizens respond to the call for general vaccination, but there always is a small group that resists such an order to the bitter end. It seems that the local health authorities issued an order that all school children should be vaccinated and a temporary injunction against this order was secured by an Indianapolis citizen. As a result of this, it is reported, some 400 unvaccinated children returned to their classes. The hearing for a permanent injunction came up before Judge



Earl R. Cox, of the Marion County Circuit Court. It is said that when the hearing opened the attorney for the petitioner asked that the suit be dismissed, whereupon Judge Cox dissolved the restraining order originally issued. This, of course, gave the health authorities the right again to disbar unvaccinated children.

Newspapers reports are to the effect that Judge Cox had indicated that he would rule in favor of the city, on the grounds that the health officials had proceeded legally in issuing the vaccination order. City health officer Herman G. Morgan states that 43 new cases of smallpox had been reported during the first 25 days in March and that the vaccination order would be enforced until the disease had been stamped out, for the time being.

It is very unfortunate that the question at issue did not come squarely up for a decision; health authorities, as well as most citizens, know that smallpox can be wiped out and that vaccination affords the only means to bring this about. Some one has said that it would be a good thing to have a nation-wide smallpox epidemic, that it would create a demand for universal compulsory vaccination. It requires a theatre fire, with a huge loss of life, to awaken folk to the necessity of fire prevention in theatres; a hotel fire seems necessary to arouse the authorities to the necessity of regulations governing such buildings; the Ohio and the Mississippi must stage a record flood before flood prevention is undertaken in a big way. So it seems is the case with smallpox; an epidemic is needed to awaken the public to the advantages and to the necessity of vaccination as a means of control and eradication.

THE JOURNAL has no quarrel with anyone in the matter; it becomes a common sense measure, one that will withstand all arguments to the contrary. Smallpox is a controllable disease; further, smallpox can be eradicated from the face of the earth—solely by vaccination. So, let's VACCINATE!

## Editorial Notes

Most district medical groups will hold meetings this month; a schedule of these is found in THE JOURNAL and we recommend that every member attend at least one of these meetings. The programs for such of these meetings as have come to our attention are unusually good.

If you are uncertain as to your 1939 membership status, better contact your local secretary. In addition to other things not so pleasant, your name will be removed from THE JOURNAL list on June first. If you want to maintain your contact with what goes on in medical Indiana, see to it that you have your 1939 card.

Malcolm MacEachern, of the American College of Surgeons, waxed rather facetious in addressing an Indianapolis luncheon club during the recent meeting of that organization. He advised the members to give more attention to "girth control" and to forget "birth control." Rather good advice, at that.

"Ralph E. Hunter, of Elizabethtown, who in the last session of the general assembly introduced a bill to make it illegal to exclude unvaccinated children from school, today was quarantined at home with smallpox."—*Indianapolis News*, April 8, 1939.

As the *Indianapolis Star* says, this may be interpreted as "poetic justice."

Doctor Brinkley of goat gland fame, also operator of a radio broadcasting station over which he sells his stuff, came a cropper in his suit against Dr. Morris Fishbein as editor of *Hygeia*, the decision being very much in favor of that AMA-published magazine. Editor Fishbein spent quite some time in a southern city in defense of the suit and is feeling quite chipper over the verdict.

"Middletown Modernizes Medicine" will be the subject of the Indiana exhibit at the American Medical Association meeting in St. Louis this month. It will be a part of the exhibit symposium on Medical Education, Hospitals and Licensure. Make a note of it, and tell your friends to meet you there. Be sure to call at the booth and urge your friends at the meeting to go, too. Make it your meeting place. Boost Indiana!

Judging from the comment that appears in the *Indianapolis Medical Society Bulletin* for April, that organization continues seriously to consider the matter of a full-time secretary. There can be no doubt as to the increase in efficiency of this group, the largest county organization in the state, if they were to adopt such a course. From the experiences of the past few months in Lake county, we can unreservedly recommend that all the larger county units in the state take on a full-time secretary. Not only will it prove a good investment from a professional standpoint, but the financial returns to the membership will outweigh the additional dues cost.

Dr. A. D. Ruedemann, of Cleveland, addressing a College of Surgeons group at their recent Indianapolis meeting, in speaking of the neck pains so frequently complained of by motorists, stated that in his opinion these pains are not due to posture or to sun and road glare; rather does he believe them due to eye strain. In addition to

advising a refraction, the doctor suggests that the driver pull over to the side of the road and rest his eyes for a few minutes.

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The United States Supreme Court recently has refused to review a decision of the California Supreme Court, which had held that the Pacific Health Corporation had violated the medical practice act of California by hiring licensed physicians to care for its members. This decision will have a far-reaching effect, especially at a time when so many corporations of various sorts seem determined to carry on a commercialized practice of the healing arts.

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A qualified "M.D." specializing in psychiatry received from a "clinical psychologist" (no degree), a card announcing "the opening of an office for the practice of clinical psychology, with special emphasis upon children's behavior problems, intelligence testing, speech defects, school retardation, remedial education, child management difficulties, and personality problems." He states that his "practice will be limited to cases referred . . . by physicians." The specialist who forwarded the card to us made the comment that whenever he feels it necessary to refer such cases to a clinical psychologist, he will choose another specialty for himself!

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Proposed congressional legislation in the matter of licensing all automobile drivers is attracting much attention over the country. The bill already has passed the Senate and is now before the House with every probability that it will become a law. In order to complete the program, it will be necessary that the Congress qualify interstate auto traffic as coming under interstate commerce. The bill carries the requirement that all drivers be subject to examination, not only as to their ability to operate a car but as to good vision and ability to read highway signs. No doubt such a measure will bring on a storm of protest, but it does seem that it is high time that some added measure of control be exerted in this field.

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A recent decision by the United States Supreme Court in the matter of federal income tax is one that will meet with almost universal approval. The court has ruled that this tax applies to public salaries of all sorts. Why such salaries were exempt in the first place never was understandable; certain it is that this is income, no matter what the source. We cannot refrain from wonder-

ing what effect this decision will have in political circles where it is common knowledge that those drawing salaries from public office are called upon to "donate" to the cause, either as a member of some "percent club" or as a direct campaign assessment. The four per cent or more that Uncle Sam will henceforth exact as his take may have a definite connection with the future political picture.

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The Committee on Health Insurance and National Medical Situation of the Indiana State Medical Association is intensively studying the question of health insurance and expects to make a report to the Executive Committee within the next sixty days. County medical societies should study carefully any systems presented before them, but the societies are urged to report to the committee before any definite action is taken. Members of the committee are: Dr. N. K. Forster, Hammond, chairman; Dr. W. U. Kennedy, Newcastle; Dr. A. C. Yoder, Goshen; Dr. J. M. Fleming, Elkhart; Dr. Ernest Rupel, Indianapolis; and Dr. W. C. McFadden, Shelbyville.

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The parking problem is far from being solved, and our larger communities are experiencing no little difficulty in handling the question. In Indianapolis there has been considerable discussion regarding the advisability of installing a parking meter system whereby the parker pays a small sum for the privilege. Now comes the newspaper report that an Indianapolis physician, Dr. John A. Martin, has invented a new gadget for this purpose. His meter accepts either pennies or nickels which pay the parking fee for from twelve minutes to one hour. At the end of the proper time, a red ball emerges from the machine so that it may be seen by the traffic officer at a considerable distance. Much of the parking problem is due to down-town employees who "hog" the better spots in the early morning and keep their cars so located throughout the business day, much to the discomfort of the buying public. At any rate, the parking problem continues to be a problem, and the Indianapolis doctor may in time reap some financial reward for his genius.

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On Sunday evening, April sixteenth, several million listeners to the Sunday Evening Hour program of the Ford Motor Company heard a very enlightening discussion of some of the problems of American medicine by Mr. William J. Cameron, public relations counsel of the Ford organization. Mr. Cameron, an outstanding speaker and a deep student of our various national economic situations, presented the case of Amer-



ican medicine in a most convincing manner. This address, heard as it was by such a large audience over the entire country, will do much to convince the American people that, after all, the medical profession is not letting them down. THE JOURNAL has taken occasion to write to Mr. Cameron to thank him for the address.

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Going over the Wagner health bill now before the Congress, we are impressed with the vagueness of some of the wording; in fact, much of the measure is not clear to the average person. It definitely leaves the control of that phase of medical practice intended to be affected by the proposed law in the hands of "bureau chiefs." It does propose that these groups *may* arrange for medical advisory boards, but our understanding of the bill is that this is optional. From experiences of the past it would seem certain, then, that the entire control would be in the hands of lay groups, undoubtedly named as political appointees. In other words, politics would control the situation.

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THE JOURNAL is contacting several hundred members by way of personal letters, asking their opinions as to what, if anything, in this magazine most appeals to them. We are very sincere in requesting frank statements in answer to the several questions. The letters are being sent out a few at a time, and those receiving them are urged to respond. As we often have stated, we are not seeking complimentary remarks; we really want to know what our readers want. From the replies already received, we are led to believe that when this program is completed, there will be available definite information as to what Indiana medicine expects of us. If you receive one of these letters, please favor us with your frank opinion. Criticism will not embarrass us; it actually will help us in our work.

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After a long period of research, including comparative checks with other recognized laboratory tests for syphilis,<sup>1</sup> L. Y. Mazzini, of the Indiana University School of Medicine and chief serologist of the Indiana State Board of Health, has publicly announced his new serological test for syphilis. A quarter of a million tests have been made, each checked against some other technic, and it was shown that the Mazzini tests are more rapidly made and at much lower cost. It is said that the test can be made in a modern laboratory in less than five minutes and at a cost of less than one cent when large numbers of tests

are run. Mazzini's test is becoming widely recognized and through his work another honor comes to Indiana's medical school and health department.

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A report made by the Indiana State Board of Medical Registration and Examination and the Bureau of Legal Medicine of the American Medical Association, under recent date, shows that for the year ending June 30, 1938, there were 169 graduates of medical schools within the United States who were licensed by this board; there were two from Canada and six from European countries. In addition to these, there were approximately fifty applicants for licensure whom the board deemed ineligible under the foreign medical school graduate regulation which is to the effect that graduates of foreign medical schools, even though the school itself is recognized, are required to take the senior year in a recognized medical school of this country.

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The fact that smallpox is more prevalent in winter than in any other season of the year is no indication that we should let-up in our pleas for universal vaccination. As is pointed out by Dr. Herman G. Morgan, Indianapolis city health commissioner, three to five years is necessary for the present epidemic to run its natural course. It should also be borne in mind that while this disease seemed to have gained a strong foothold in our capital city during the past winter, smallpox was advancing in a southerly direction and several communities south of Indianapolis found it a formidable menace and were obliged to exercise necessary degrees of control. Our belief is that the only way to thoroughly eradicate this vile disease is to keep eternally at it, which means a continuous vaccination program.

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According to the regular Australian correspondent of the American Medical Association, under date of February 14, 1939, it would seem that the Australian government had decided to completely abandon its scheme for national health and pensions insurance, this after an expenditure of approximately one million pounds. Among the reasons advanced for this decision are fear that the financial burden involved may be so great as to interfere with normal developmental expenditure, particularly that having to do with a heavy defense program; also the possibility of serious objection to the government costs of such insurance in the face of unusually severe drouth and widespread bush fires is given as an added reason for the abandonment of the program. It is stated that the government has not decided whether the whole organization will be disbanded immedi-

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<sup>1</sup> Mazzini, L. Y.: Serodiagnosis of Syphilis. *Jour. Indiana St. Med. Assoc.*, Vol. 32, No. 2 (Feb.) 1939, p. 65.

ately or whether it will be kept to form a nucleus for the proposed national register which is for defense purposes only. The British Medical Association in Australia has been opposed from the beginning to this form of insurance.

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Volume 1, Number 1, of the *Lake County Medical News* has made its appearance under the editorship of Dr. N. K. Forster of Hammond. This twenty-eight page magazine would do credit to many county societies of much larger membership than Lake county, and it is made possible through the indefatigable efforts of "Henry" Waterson, the recently installed full-time executive secretary. The bulletin carries a generous amount of advertising together with several pages of reading material more than ordinarily worth while. The president and secretary each have their own page, as do several committee chairmen. According to the bulletin, the program of this society for the remainder of the year reaches amazing proportions and one wonders just how it may be carried out. However, referring to the rather unusually large committee list and knowing somewhat of the activities of "Henry," we feel that the end of the year will find all major programs completed. THE JOURNAL welcomes the *Lake County News* into the medical journal field of Indiana and predicts for it increasing successes.

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Press reports speak of a movement to extend the biennial sessions of the Indiana legislature, the sponsors of the movement arguing that the constitutional sixty-one day limit is all too short, that the closing days are of the hectic variety, and many important measures are lost in the seemingly inevitable "jam" that comes during the last week or two of the sessions. Such a move is not well received by the average observer of the doings of the solons, every two years, the consensus being that much valuable time is lost through the "jockeying" that takes place during the first few weeks. Many of the members of the general assembly are new to the job and it is but natural that they should wish to look around a bit, once the session begins. The older heads are not anxious for the legislative grist to begin at once, preferring to cast about for a spell, the better to see the lay of the land and to arrange for possible trades later on. A constitutional amendment would be required to bring about a change in the length of the session and it is extremely doubtful that such an amendment would be favorably considered by the majority of the voters in any general election. Hoosier folk are a bit chary about changes in our constitution, a document that long has withstood the attacks of politics. One feature that appeals to the average citizen has to do with a state bonded indebtedness. While many of our sister states have a huge state debt, Indiana has none;

as a state, Indiana has no bonding power—it is pay as you go. It has been suggested that a change in procedure might be made, and this within the constitution, whereby the legislature would meet on the appointed date and after twenty or thirty days devoted to the introduction of bills, take an adjournment for ten days or so, thus giving reference committees ample time in which to consider them and also afford opportunity for the public to express itself regarding them. We believe such a plan possesses much merit and would be disposed to favor it, but as to increasing the term of the assembly we should have to say a very decided "No!"

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More than a thousand physicians registered at the regional meeting of the American College of Surgeons in Indianapolis in March—more than had attended a similar meeting in Baltimore the preceding week. Attendants were uniformly enthusiastic about the whole session. On the last day, a public meeting was held and there was such a large attendance that an overflow meeting was held and each of the speakers delivered his address a second time. Through necessity and choice we have attended many public meetings of this kind, but never have we heard such worthwhile talks. Undoubtedly the caliber of the speakers had much to do with it, for Dean Gatch presented Dr. George Crile, of Cleveland, Dr. Howard C. Naffziger, of San Francisco, Dr. B. C. Crowell of Chicago, Dr. Charles C. Higgins of Cleveland, Dr. Alfred W. Adson of Rochester, Dr. Frank E. Adair of New York City, and Dr. M. T. MacEachern of Chicago, all top-notchers. They told of the future of medicine, of the progress in hospitalization and medical service, the wonders of medicine; they talked of diets, the brain, cancer, and the proper way to choose a doctor and a hospital—and while their language was easily understandable by the average layman, yet the facts and information presented were such as to make the listener believe that, at last, eminent physicians actually were giving laymen credit for having enough sense to understand some of the problems of medicine. There was a spirit of camaraderie on the part of the speakers that made the audience feel that here were men who were high above the average in their profession, yet who felt inclined to share their knowledge, to remove the "mystery" so often surrounding medical practice, and to lead the layman to understand that the successful practice of medicine depends upon his cooperation with the physician of his choice. If only such public meetings could be held in every community, much of the antagonism that has been stirred up against physicians would be quieted. And it would serve another purpose: An informed public will be satisfied with no less than the best, and poorly trained, inefficient medical men would disappear for lack of practice.



## THE TREATMENT OF PNEUMOCOCCIC PNEUMONIA WITH SULFAPYRIDINE\*

K. G. KOHLSTAEDT, M.D.,

IRVINE H. PAGE, M.D.

Indianapolis

Whitby<sup>1</sup> (1938) reported that sulfapyridine was of value in the treatment of pneumococcic infections in mice and several clinicians have subsequently found it of value in the management of patients with pneumococcic pneumonia. During the fall and winter of 1938-39 we have treated 50 unselected patients suffering from this disease in the Indianapolis City Hospital and the private pavillion of the Methodist Hospital and it is with these that this report is concerned.

**DOSAGE**—Treatment was begun with an initial dose of 2 grams followed by 1 gm. at 2 or 3 hour intervals during the next 36 hours. Further administration depended on: (1) The severity of toxic manifestations, *i. e.*, vomiting, skin rash, mental confusion or depression, (2) the rectal temperature after 36 hours of treatment, (3) the concentration of free sulfapyridine in the blood, (4) change in the number of leucocytes. Vomiting occurred at some time during treatment in 80 per cent of the patients, but the drug was not discontinued unless it became severe. Bacteremia and extensive consolidation of the lungs were considered indications for giving the maximum amount of the drug which the patient could tolerate.

**RESULTS**—The mortality from pneumococcic\*\* pneumonia in patients receiving no specific treatment in this hospital for the past 2 years has been 48 per cent and 33 per cent respectively. We have no reason to suppose it would have been less this year. In the 50 patients receiving sulfapyridine the mortality was only 6 per cent, yet 17 of the patients were over 40 years of age. The onset of the pneumonia was 3 or more days before treatment was begun in 23 patients; 6 were infected with Type III pneumococci and bacteremia occurred in 8 patients. This result, in our opinion, leaves little room to doubt the value of the treatment.

When treatment is begun early, clinical improvement is usually surprisingly rapid and clearing of the morbid changes in the lungs soon follows. The longer the interval before treatment, the slower this resolution, despite the fact that fever may disappear with equal celerity.

The complications attending the use of the drug were few and for the most part not serious except for vomiting and nausea. These occurred in most

of the patients, but became important in less than a quarter of them. Anemia was unusual.

The response of the leucocytes was unpredictable, although in many patients their number paralleled the temperature curve. The leucocytes continued to increase in our fatal cases in spite of high concentrations of free sulfapyridine in the blood. This may be of some prognostic significance. Our data do not indicate, as might have been expected, that leucopenia is a definite contraindication for the use of the drug. Indeed, the leucocytes rose from an initial low level after starting treatment in 3 patients. It seemed desirable to discontinue treatment because of increasing leucopenia in another 3 patients. It is interesting that all patients with initial leucopenia showed high percentages of polymorphonuclear leucocytes and that as the leucocytes increased in number, their percentage decreased.

Too early withdrawal of the drug may be followed by spread of the pneumonic process. It has been our practice when temperature and pulse return to normal to reduce the dose to 5 grams a day and continue this for 3 days. Recrudescence is treated by raising the dose to 10 grams a day for 24 to 48 hours. It has been found to be a matter of the greatest importance to examine the patient with care when the fever has disappeared to be sure of resolution.

Bacteremia did not prove to be as serious a handicap in patients treated with sulfapyridine as is usual in patients receiving no specific therapy. One of 8 patients died and this one had pneumococcic endocarditis.

We have found it desirable to employ antipneumococcus serum in a few patients with the drug chiefly for two reasons, namely, nausea and vomiting and leucopenia. It appeared that we would have been seriously handicapped in our management of these cases had not serum been available.

Empyema developed under treatment in 2 patients, who later required surgical drainage. Of interest is the fact that fluid aspirated from the chest of a patient with a blood level of 6 mg. per 100 cc. of free sulfapyridine, contained 3 mg. per 100 cc. of the drug. It is possible that the relatively free diffusibility of sulfapyridine aids in bacteriostasis in exudates.

We are aware that excessively large doses of sulfapyridine in animals may lend to formation of concretions in the urinary tract. Further, renal damage might result from the clearance of such large amounts of a pyridine-containing drug.

(Concluded on page 296)

\* Lilly Laboratory for Clinical Research, Indianapolis City Hospital, Indianapolis.

\*\* The bacteria were not typed in all of these patients.  
<sup>1</sup> Whitby, L. E. H., Chemotherapy of pneumococcal and other infections with 2-(p-aminobenzenesulfonamido) pyridine, LANCET 1:1210-1212, May 28, 1938.

## Indiana—Vacation Land

E. M. SHANKLIN, M.D.

With more than nine thousand miles of the best hard-surfaced roads in the country plus other thousands of miles of well-maintained county highways, and with a dozen or more state parks comprising a total of 13,360 acres, the Hoosier State compels the attention of the prospective vacationist whether he be a native or not.

Just as there are numerous considerations when planning a vacation, so are there countless advantages for the tour-minded to be found in Indiana. Whether one's interest lies in beautiful scenery of the natural sort, in virgin forests and forests in the making, in viewing modern farms or investigating the great industrial centers, whether the object is to find a spot well removed from the busy life of the city, a bathing beach of natural beauty or the pursuit of the game fish or the variety known as pan-fish, all these are to be found in Indiana today—thanks to the efforts of our State Department of Conservation.

### FORESTS

For those who admire the forests, we recommend a study of what the Department of Conservation is doing to recreate Indiana as a timber state.

From the spring of 1931 through the spring of 1938, more than *twelve million* trees were produced in our state forests and planted on state-owned land. In addition, more than fourteen million trees thus grown were planted on privately owned land and on strip-mined areas in the state. Three nurseries occupying some 88 acres are state-maintained, the average annual inventory being *twenty-two million* trees. For the current planting season, six million trees have been allotted to fill almost one thousand orders received prior to March first.

The state forests and the larger park

systems are under constant patrol by the Division of Forestry, under both federal and state supervision. There are twenty-seven fire towers for observation purposes under the direct control of the two district foresters, one in southeastern Indiana and the other in the southwest section. Sixty forest fire wardens, together with five hundred fire fighters, care for the two million acres of wooded land.

In the creation of these state forest areas, due attention has been given the vacationist. Seventeen lakes have been created within these properties, with four additional artificial lakes on the state game preserves. Six lakes have been made in state park lands, bringing the total to twenty-seven, and covering areas totalling 2,596 acres. All of these lakes have been built within the last six years.

### GAME

The hunting season is a long way off, but the average sportsman-vacationist is ever on the alert for a choice spot for pheasants, quail, and even the little cottontail. Game propagation is

carried on rather extensively by the department. In 1938, there were 28,759 quail and 22,100 pheasants liberated in sections especially suited to these birds. In addition, 27,585 quail and 11,858 pheasants were sent to the various fish and game clubs over the state to be liberated by those organizations. All liberations of game are made under the direct supervision of the state game wardens, more about whom will be mentioned later.

One of the game propagation problems is the menace of the bird outlaw, the crow. Hunters have recognized this enemy to bird life and lately have been exterminating them in great numbers,



Scene in one of Indiana's classified forests





Familiar scene in Indiana state parks

though the fight is by no means won. Annual contests are held in which various clubs make determined fights against the crow family and are rewarded by prizes from the Department of Conservation. In the first five contests held, a total of 234,000 crows were exterminated.

It probably will surprise you to learn that more than four hundred deer are roaming the forests of southern Indiana, and numerous varieties of small game are to be found in the state. In the trapping season, several Hoosiers find this a profitable occupation.

#### STATE PARKS

Hoosiers are justifiably proud of the state park system—a dozen or more of the most delightful spots to be found anywhere. The parks are well kept and many of them afford scenery of unrivaled beauty. Out-of-state folk have recognized this and at each of the parks can be noted automobiles from every part of the country. The largest attendance in 1938 was, of course, at Dunes State Park, near Chicago. Almost 262,000 visitors paid the ten-cent admission fee to this park last year. Turkey Run was a close second with paid admissions of nearly 215,000. The largest increase in attendance, however, was shown by Pokagon with a 35 per cent increase. Dunes, Pokagon and Shakamak parks have bathing beaches, while Brown County and McCormick's Creek have modern bathing pools. In addition, there is at Bass Lake a state bathing beach comprising some ten acres. Spring Mill park soon will open a modern bath house and bathing beach.

All state parks remain open throughout the year, though some of the inns are closed after the fall season. Pokagon, Turkey Run, McCormick's Creek, Clifty Falls, and Muscatatuck inns are open the year 'round, and these inns are indeed worthy of the name; they reflect true Hoosier hospitality, the rooms are comfortable and well kept, and the food is of the best. They are popular to the extent that it is well for prospective guests to make reservations well in advance.

#### TOURS

As we have said, the more than nine thousand miles of modern highways will carry the vacationist to any point in Indiana. Many of these highways in the extreme southern section of the state afford panoramas that seldom are found.

Road number 62 offers unusually beautiful scenery, though others may dispute this in favor of other routes. Winding as it does through the southern tier of counties, road 62 unfolds for the traveler one natural beauty spot after another. The view of the Ohio, at Leavenworth, is one of the most beautiful vistas on the entire stream. Driving westward along 62, the road winds about a rather high hill and suddenly there appears to the tourist what seems to be a transplanted European scene—medieval castle and all. It is St. Meinrad's Abbey, the home of the Benedictine monks; there is a pretentious group of buildings surrounding a beautiful church. Also along 62 is found Wyandotte cave, worthy of a visit by all vacationists who reach that vicinity, and just a bit to the north is Marengo cave, famed for its natural beauty. Continuing west from St. Meinrad, the tourist comes upon a wide section of road with a beautifully planned and well kept center parkway. A large American flag, flung high from a giant staff, announces that this is a spot of more than common interest—the Nancy Hanks Lincoln State Park where in a beautiful spot in the woods may be seen the grave of the Great Emancipator's mother.

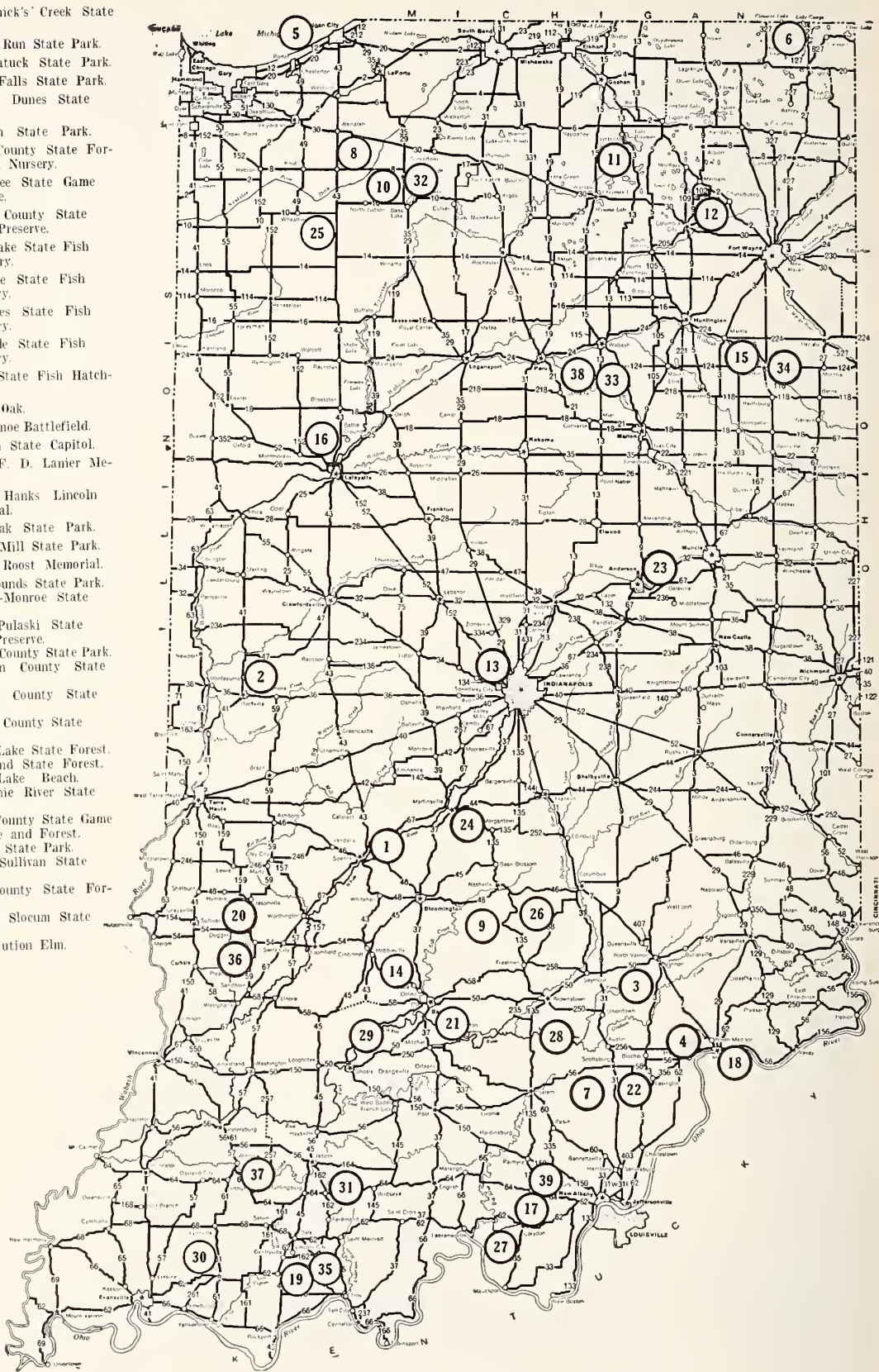
The traveler should not fail to visit New Harmony, former site of the Rappite Colony, later famed as the home of the "boat load of knowledge," a group of scientists headed by Robert Owen whose name occupies a merited place in Indiana history. Many of the original Rappite buildings remain standing, as they were years and years ago, and there is the Rappite cemetery, unique in that no monuments or headstones mark the burial spots of the numerous members of the



Bluegills caught from Crooked Lake, east of Orland

INDIANA — PLAYGROUND OF THE MIDDLE WEST

- 1. McCormick's Creek State Park.
- 2. Turkey Run State Park.
- 3. Muscatatuck State Park.
- 4. Clifty Falls State Park.
- 5. Indiana Dunes State Park.
- 6. Pokagon State Park.
- 7. Clark County State Forest and Nursery.
- 8. Kankakee State Game Preserve.
- 9. Brown County State Game Preserve.
- 10. Bass Lake State Fish Hatchery.
- 11. Wawasee State Fish Hatchery.
- 12. Tri-Lakes State Fish Hatchery.
- 13. Riverside State Fish Hatchery.
- 14. Avoca State Fish Hatchery.
- 15. Deam Oak.
- 16. Tippecanoe Battlefield.
- 17. Corydon State Capitol.
- 18. James F. D. Lanier Memorial.
- 19. Nancy Hanks Lincoln Memorial.
- 20. Shakamak State Park.
- 21. Spring Mill State Park.
- 22. P'geon Roost Memorial.
- 23. The Mounds State Park.
- 24. Morgan-Monroe State Forest.
- 25. Jasper-Pulaski State Game Preserve.
- 26. Brown County State Park.
- 27. Harrison County State Forest.
- 28. Jackson County State Forest.
- 29. Martin County State Forest.
- 30. Scales Lake State Forest.
- 31. Ferdinand State Forest.
- 32. Bass Lake Beach.
- 33. Salamonie River State Forest.
- 34. Wells County State Game Preserve and Forest.
- 35. Lincoln State Park.
- 36. Greene-Sullivan State Forest.
- 37. Pike County State Forest.
- 38. Frances Slocum State Forest.
- 39. Constitution Elm.





colony interred there. The recent legislature passed a bill providing for the purchase of many of the historical buildings in this quaint town, thus preserving them for the future.

The tourist who has a flair for educational institutions should begin with Purdue University at Lafayette, where several days could well be spent in investigating the methods of the Hoosier State in providing educational facilities for those wanting technical education. A few miles southward to Crawfordsville, historic "Old Wabash" will occupy one's time to good advantage. Continuing along route 43 will bring the traveler to Greencastle where Old Asbury, now DePauw University, entrances her visitors. Then to Bloomington and Indiana University where the freshman year of the medical course is given. The beautiful new buildings on the campus will be a delight to an alumnus who has not visited the campus in recent years. South from Bloomington, pause to investigate the great limestone quarries from where comes the stone universally known as the world's best building stone. The processing of this stone and the sight of giant saws splitting the huge limestone blocks into workable sizes and shapes is quite worth one's time. Then to the eastward we find Hanover College, a school founded in 1827 and recently rejuvenated by the wholesome means of several hundred thousand dollars added to her treasury. The Hanover campus undoubtedly is the most beautiful college spot in Indiana, located as it is upon a high hill overlooking the Ohio. Franklin College at Franklin would be worth the short detour from Bloomington.

#### INDUSTRIAL CENTERS

Numerous sections of Indiana afford much of interest to those who wish to visit the larger industrial section. It would be unfair to mention a few of the cities that have such plants. Generally speaking, one can tour the eastern half of Indiana and find concrete evidence of pulsing industry in any of the cities visited.

Many are interested in the great steel industries of the northwest section of the state, notably in Lake county—the "Pittsburgh of the West." By driving through that section, a vivid picture of what it is all about may be had, and it is possible to tour many of the mills.

#### FISHING

But the real vacationist—the true disciple of Izaak Walton—wants to know about Hoosier fishing, where to go and what he may expect when he gets there. Right here is where Indiana is doing herself proud. Indiana yields to no state in the matter of piscatorial accomplishments. We have told you of the "made" lakes, many of which are now ready for the bait or fly caster or for the still-fisherman.

Few changes were made in the state fishing laws by the 1939 legislature. The out-state fisherman

will now be able to purchase a fourteen-day license at a fee of one dollar (last season the same money bought a ten-day license). Indiana women who like to fish—and there are many of them—may procure a license for fifty cents for a year. Perhaps there should be a proviso that they bait their own hooks and unhook their own catches!

How many licenses were issued by the Conservation Department in 1938? There were 431,634 Hoosier residents who bought such licenses in 1938, and the license gave them permission to hunt, fish, and trap for a year (January to December, inclusive). Non-residents bought 4,583 annual fishing licenses and 10,936 non-residents bought the ten-day licenses. Nearly a half million people bought such licenses in 1938!

It should be borne in mind that *every dollar* of income from these licenses goes into fish and game production and protection. Much of this money is used in the production of fish in the state-operated hatcheries *and all fish thus produced are planted in Indiana waters!* During 1938, the Department produced and planted more than eighteen million fish in these waters. In addition to this staggering total, club hatcheries added more than seven million fish to our waters, which makes a grand total of more than twenty-five million fish added to our vacation fisherman supply. Over nine million bluegills, that small pan-fish that goes into a tailspin when successfully hooked and which no doubt would be awarded the palm by a great majority of Hoosier Waltons, were planted last



Fifteen-pound muskie caught in a tributary at Little Blue River

year. On three occasions last year, and in but one lake, we saw the planting of over fifty thousand of these fish—bluegills that will be ready for the hook in no time. More than thirteen million walleyes were planted, along with some eight hundred thousand bass, including the large-mouth and small-mouth varieties. Four hundred thousand trout, secured from federal hatcheries, were added to such streams as might afford them proper protection.

In recent years there has been added a variety of fish long unknown to most Indiana lakes and rivers, the great northern pike, a cousin to both the pickerel and the muskellunge. This fish seems to have thrived in our waters since the 1938 catch was by no means a small one and some exceptionally large specimens were brought to gaff.

We rather hesitate to mention some of the big lunkers of the bass family that were caught in 1938, lest some of our readers protest that they have beaten the record. However, Gale Smith, of Mansfield, Ohio, fishing in Lindsay Lake, caught a smallmouth weighing seven pounds and eight ounces, and F. V. Grote, of Vincennes, fishing in Lanahan Pit, picked up a large mouth that tipped the beam at eight pounds and twelve ounces. Darn good fish in any man's waters!

#### WARDENS

Our fishing waters are patrolled, just as our state forests are patrolled; we have now a game warden system that is as good as it is efficient. These wardens are gentlemen of the first water; it indeed is a pleasure to meet and talk with them. In fact, in every sportsman's club fiesta of the present day, you will find one or more of these wardens as special guests of honor. They are educational as well as enforcement officers. They are not interested in making wholesale arrests, but endeavor to teach the vacationist what a bag limit means, why the keeping of undersize fish is not desirable, why one should procure a license. The wardens are told by the Department that "The warden who finds a technical violation accomplishes far more by doing a little missionary work than by yanking the offender before a justice of the peace. The ideal warden is a man intelligently interested in wild life, competent in the field, whom sportsmen and others will respect as an

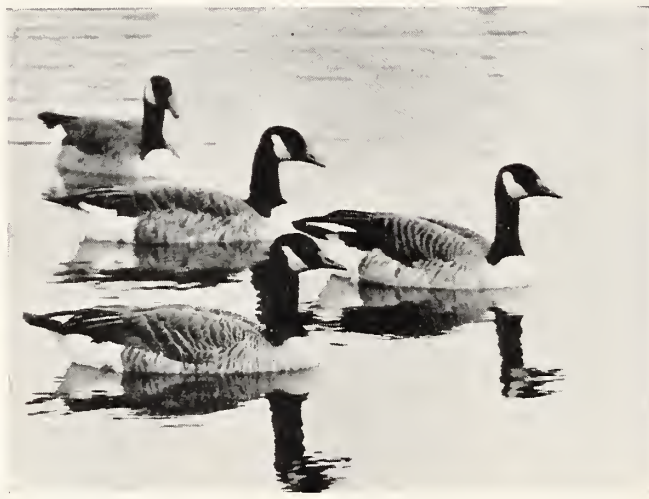
authority on questions within his jurisdiction." Wardens will tell you where to fish and each week furnish to the Department of Conservation a report concerning the waters under their jurisdiction. Such reports were printed last year by at least one Indianapolis newspaper and afforded information of much value to fishermen.

Much more might be said about Indiana as a vacation spot but perhaps the foregoing will sufficiently arouse "our folk" to do a bit of investigating. It is certain that those who accept the advice to spend their 1939 vacation in a tour of Hoosierland will be well rewarded.

#### SEE INDIANA FIRST!

Have you visited the Indiana state parks in recent years? Before you plan your vacation this year, write to the Indiana Department of Conservation and ask for literature on state parks. If you do not wish to spend your time motoring from one vacation spot to another, select the state park that most appeals to you, make your reservations well in advance, and spend several days or a week there, and become familiar with the park. Nature hikes under the direction of competent guides are interesting, educational, and free to inn guests. Congenial folk are always about. Whatever you like, you can find it in one or more of Indiana's state parks, and we urge you to *see Indiana first!*

Mr. Marc Waggener, director of publicity of the Department of Conservation, has given invaluable assistance in the preparation of this material and the author acknowledges, with thanks, his many courtesies. All of the pictures used with this article were loaned by Mr. Waggener and have previously appeared in *Outdoor Indiana*.



Canada geese wintered at the Jasper-Pulaski state game preserve

THE INDIANA DEPARTMENT OF CONSERVATION PUBLISHES A MONTHLY MAGAZINE—"OUTDOOR INDIANA"—WHICH GIVES ALL THE LATEST INFORMATION ABOUT STATE PARKS AND THE WORK OF THE DEPARTMENT OF CONSERVATION. IT MAY BE OBTAINED FREE UPON REQUEST TO THE DEPARTMENT. IF YOU ARE ESPECIALLY INTERESTED IN THE IMPROVEMENTS MADE IN INDIANA STATE LANDS, ASK THE DEPARTMENT OF CONSERVATION TO PLACE YOUR NAME ON THE MAILING LIST TO RECEIVE "OUTDOOR INDIANA."





## President's Page



### ALLERGY

The field of allergy is relatively new, and a vast amount of research work is being done.

The meaning of the term is changing so that it is impossible to arrive at a definition which is applicable to all variations. It is believed that some of the allergic conditions, which have been regarded as disease entities in the allergic group, are the outward expression of a peculiar reaction, namely, an exaggeration of a normal response on the part of an individual on one or more of his tissues. This exaggeration is generally classified as an altered degree of sensitiveness.

There are a number of clinical conditions which belong to the allergic group, such as asthma, hay fever, vasomotor rhinitis, infantile eczema, neurodermatitis, urticaria, angioneurotic edema, Henoch's purpura, idiopathic convulsions, and certain types of arthritis. In addition it is believed that allergic factors are necessary for the production of acute infectious diseases like pneumonia, trichinosis, and for chronic infections like tuberculosis.

The etiology is variable; however, there are a number of common causes, such as food, pollen, bacteria, house dust, molds, drugs, occupations, nervousness, and physical causes, that is, heat, cold and sun-light. Heredity is believed to be an important factor in clinical allergy, to the degree that an individual may inherit a susceptibility to sensitizations. This fact is brought out very clearly in the cases of infants under one year of age who have allergic manifestations, believed to have become sensitive by means of placental circulation, due to the diet of the mother during pregnancy.

It is thought that a clear, complete history is the most important factor in the diagnosis of patients with a clinical allergy. In addition, cutaneous and subcutaneous skin tests are of value, although their significance is sometimes questionable because some cases may give positive reactions which cause no systemic symptoms, and others may give no skin test reaction, and may be found to be causative factors.

The leukopenic index test is found to be additional means of verification in determining the causative factor, chiefly in food sensitivity, in conjunction with other diagnostic procedures.

New therapeutic measures appear in the literature from time to time; however, one of two methods must be used in order to obtain relief of symptoms which are: avoidance of the offending substance, or treatment to achieve decreased sensitivity. Hay-fever which is very common can be controlled by treatment with properly adjusted mixtures and suitable dosages of pollen extracts. To enhance this therapy, pollen extracts emulsified in oil are being used because it is believed they will be absorbed slowly, and in this way larger total doses may be given without generalized reactions.

Drug and food allergy is brought under control, after the offending substance is determined. Elimination diets are most efficacious in food sensitivity. Drug allergy is being recognized more and more, and those commonly found are: iodine, morphine, acetylsalicylic acid and aminopyrine. Discontinuing the medication generally ameliorates the symptoms.

In occupational allergy, dyes remain the important source of trouble, with black as the most frequent cause. Chemical imitations are common, and frequently produce reactions in normal as well as sensitive persons.

In the treatment of asthma, one of the most common allergies, a suspension of powdered epinephrine in oil has been successful in the control of symptoms, due to its slow absorption and consequent prolongation of its effect. Another drug similar to epinephrine for which popular claims are made is benzedrine used as an inhalant in these cases as a temporary measure. Intravenous therapy with hypertonic solutions of dextrose and sucrose is reported to give prompt relief in asthmatic attacks. Theophylline with aminophylline dissolved in saline solution and given intravenously has also been used in the treatment for severe attacks of asthma. A procedure which has been of value is intratracheal injection of iodized poppy-seed oil. Marked improvement is noted in symptoms for a period of time with decrease in cough and spasm, and in a certain percent of patients the asthma is relieved. In extreme cases rectal ether may be given to control the attacks, and if necessary it is reported that bilateral resection of the posterior pulmonary plexus can be done as an extreme measure.

An effort is being made to apply results of laboratory experiments to patients, with the hope that increased understanding of tissue reactions will supply information on the mechanism of allergic symptoms. Closer attention is being paid to the patient as a whole, plus additional studies of metabolism, hormones, and food factors.

*E. M. Van Buskirk.*

# District Meetings

## FIRST DISTRICT

### Officers

President, Minor Miller, M.D., Evansville  
Secretary, Henry J. Faul, M.D., Evansville  
Councilor, I. C. Barclay, M.D., Evansville

### Program

Date: June 8, 1939  
Place: Princeton Country Club

Program for the First District meeting was not completed in time for publication in this JOURNAL. It will be published in the June issue. Place of meeting mentioned above is a tentative arrangement and may be changed.

## SECOND DISTRICT

### Officers

President, William C. Reed, M.D., Bloomington  
Secretary, J. S. Brown, M.D., Carlisle  
Councilor, H. C. Wadsworth, M.D., Washington

### Program

Date: May 24, 1939  
Place: Bloomington—Medical School Auditorium

- 1:30 P. M.—Registration
- 2:00 P. M.—Introduction of guests
- 2:10 P. M.—Secretary's report—Dr. J. S. Brown
- 2:15 P. M.—Election of officers
- 2:30 P. M.—Scientific program
  1. Resume of Some Experimental Studies in Male Hormones—Dr. Hill, I.U. Dept. of Physiology
  2. Discussion and Clinical Application—Dr. John Warvel, Indianapolis
  3. Use of Sulfapyridine in Hospital Cases—Kenneth Kohlstaedt, Indianapolis
  4. Clinical Discussion and Application of the Drug in Private Practice
  5. Endometriosis—Dr. W. D. Gatch, Indianapolis
- 4:15 P. M.—Tour of Indiana University Medical Building with Dr. B. D. Myers
- 6:30 P. M.—Stag Dinner—Bloomington Country Club  
Food—Fun—Frivolity

## THIRD DISTRICT

### Officers

President, H. C. Knapp, M.D., Huntingburg  
Secretary, Ivan Clark, M.D., Poali  
Councilor, W. H. Garner, M.D., New Albany

### Program

Date: May 3, 1939  
Place: Huntingburg  
(Program not received)

## FOURTH DISTRICT

### Officers

President, A. M. Kirkpatrick, M.D., Columbus  
Secretary, Byron Zaring, M.D., Columbus  
Councilor, M. C. McKain, M.D., Columbus

### Program

Date: May 25, 1939 (Thursday)  
Place: Columbus, Indiana, Chamber of Commerce Building

### Morning

Golf for men in the morning; for women in the afternoon. Noon luncheon served at the Country Club.

### Afternoon

- 2:00 p.m.—"Some Obstetrical Helps." C. O. McCormick, M.D., Indianapolis
- 3:00 p.m.—"Treatment of Pneumonia." J. O. Ritchey, M.D., Indianapolis
- 4:00 p.m.—"Important Principles in Treatment of Congestive Heart Failure." A. R. Barnes, M.D., Mayo Clinic, Rochester, Minn.  
Motion pictures on obstetrics and pneumonia.

### Evening

- 6:30 p.m.—Banquet. Speaker—A. R. Barnes, M.D., Rochester, Minn.  
Subject: "Diagnosis and Therapeutic Aspects of Cardiac Pain."

## FIFTH DISTRICT

### Officers

President, H. H. Ward, M.D., Coalmont  
Secretary, J. V. Richart, M.D., Terre Haute  
Councilor, O. O. Alexander, M.D., Terre Haute

### Program

Date: May 5, 1939 (Friday)  
Place: Elks Club, Terre Haute  
Time: 6:30 P. M.

The Fifth District Medical Society will meet as usual in conjunction with the Vigo County Medical Society, the Aesculapian Society of the Wabash Valley, and the Terre Haute Academy of Medicine.

Speaker: Dr. Clinton W. Lane, Washington University, St. Louis, Missouri. His subject will be "Dermatology."

Dr. Lane will conduct a skin clinic in the afternoon, from four to six p.m., at Union Hospital in Terre Haute.

## SIXTH DISTRICT

### Officers

President, W. U. Kennedy, M.D., Newcastle  
Secretary, J. E. Ferrell, M.D., Fortville  
Councilor, Samuel Kennedy, M.D., Shelbyville

### Program

Date: June 7, 1939 (Wednesday)  
Place: Connersville, Indiana

### Morning Session

- 10:00 a.m.—Motion picture, "Differential Diagnosis of Vomiting in the Newborn" (I reel).  
H. V. Scott, M.D., Fort Wayne  
Subject: "Vomiting in the Newborn and Infancy."  
Gerald Kempf, M.D., Indianapolis



Subject: "Newer Aspects of Treatment of Acute Infectious and Contagious Diseases."

Noon

12:30 p.m.—Luncheon. Guest speaker.

#### Afternoon Session

1:30 p.m.—W. S. Robertson, M.D., Spiceland

Subject: "Electrocardiography in General Practice."

2:15 p.m.—Motion picture, "Some Diagnostic and Therapeutic Procedures in Pediatrics." (3 reels).

Discussion and questions.

(This program has been prepared through the joint cooperation of the program committee of the society and the Bureau of Maternal and Child Health of the Indiana State Board of Health.)

### SEVENTH DISTRICT

#### Officers

President, O. A. Province, M.D., Franklin

Secretary, E. W. Dyar, M.D., Indianapolis

Councilor, C. J. Clark, M.D., Indianapolis

The Seventh District Society will hold its meeting in the fall, probably November.

### EIGHTH DISTRICT

#### Officers

President, C. V. Rozelle, M.D., Anderson

Secretary, L. G. Montgomery, M.D., Muncie

Councilor, M. A. Austin, M.D., Anderson

#### Program

Date: June —, 1939

The Eighth District Medical Society will meet in Anderson about the middle of June. Details will be printed in the June JOURNAL.

### NINTH DISTRICT

#### Officers

President, W. H. Williams, Lebanon

Secretary, C. G. Kern, M.D., Lebanon

Councilor, F. T. Romberger, M.D., Lafayette

#### Program

Date: May 11, 1939

Place: Ulen Country Club, Lebanon

Golf tournament in the morning at the Ulen Country Club where all meetings will be held.

Noon—Delegates' luncheon

Afternoon—Scientific program:

1. C. J. Clark, M.D., Indianapolis

Subject—Sulfapyridine in the Treatment of Pneumonia

2. Russell Henry, M.D., Indianapolis

Subject—Tuberculosis from the General Practitioner's Standpoint

3. Karl Ruddell, M.D., Indianapolis

Subject—Surgery

Evening—Banquet

Guest Speaker—Al Wynkoop, Lebanon

### TENTH DISTRICT MEETING HELD IN APRIL

#### Officers

President, Frank R. Doll, M.D., Whiting

Secretary, Louis J. Wisch, M.D., Whiting

Councilor, James M. White, M.D., Gary

#### Program

The Tenth District Society held its annual meeting at the Lake Hills Country Club, St. John, Indiana, Thursday, April 13, 1939.

### ELEVENTH DISTRICT

#### Officers

President, H. M. Rhorer, M.D., Kokomo

Secretary, O. G. Brubaker, M.D., North Manchester

Councilor, Ira Perry, M.D., North Manchester

#### Program

Date: May 10, 1939 (Wednesday)

Place: Peru, Indiana

10:00 a.m.—Clinic on Cardio-renal Diseases. Howard Odel, M.D., Rochester, Minnesota.

12:00-1:30—Luncheon.

1:30 p.m.—Business meeting.

2:00 p.m.—General meeting.

1. President's address—Dr. Rhorer.

2. Paper by E. O. Asher, M.D., New Augusta.

3. Essential Hypertension—Diagnosis and Management. Howard Odel, M.D., Rochester, Minn.

4. The Acute Ear (Illustrated) O. G. Brubaker, M.D., North Manchester.

5. General Discussion.

6. Brief talks by representatives from the Indiana State Medical Association.

#### Evening

Banquet, under the auspices of the Miami County Medical Society.

Address "Germany and Her Neighbors." By Professor A. W. Cordier, Manchester College, North Manchester.

### TWELFTH DISTRICT

#### Officers

President, H. O. Williams, M.D., Kendallville

Secretary, S. R. Mercer, M.D., Fort Wayne

Councilor, A. J. Sparks, M.D., Fort Wayne

#### Program

Date: May 23, 1939 (Tuesday)

Place: Decatur, Indiana. Masonic Temple

Meeting will open at 4:30 in the afternoon. Papers will be presented by L. J. Pollack, M.D., of Chicago, on the subject of "Epilepsy," and by R. S. Dinsmore, M.D., of Cleveland, on "Tumors of the Neck." E. M. Van Buskirk, M.D., president of the Indiana State Medical Association, and Mr. Thomas A. Hendricks, executive secretary of the Association, will speak.

Officers for 1939-1940 will be elected.

### THIRTEENTH DISTRICT

#### Officers

President, David Todd, M.D., Elkhart

Secretary, F. G. Perry, M.D., Plymouth

Councilor, Alfred Ellison, M.D., South Bend

#### Program

The Thirteenth District will hold its meeting at LaPorte in October.

## NEW LAWS PERTAINING TO INDIGENTS

By LEO X. SMITH

Attorney for the Indiana Township Trustees Association, and Center Township of Marion County, Indiana

Three laws enacted by the 1939 Legislature having to do with medical care or hospitalization of the poor are of great interest to the medical profession, hospitals, and township trustees. There is no federal or state aid for poor relief in Indiana, the basic unit for such attention being the township which finances its own problems, a large part of which are medical.

### THE RELIEF SETTLEMENT LAW

A relief "settlement" law provides the length of time persons must reside in the State or community before being entitled to poor relief. Heretofore, this law has not been sufficiently clear as to those who may obtain medical attention or hospitalization paid for by taxpayers. If an applicant obtained medical assistance through the township trustee, he came within the relief settlement law, but if he went directly to a clinic or public hospital, he did not, and it makes a difference.

Situations arise where indigents from other states come to Indiana for the sole purpose of taking advantage of our good hospitals and splendid doctors and frankly say they come for needed medical attention. One young lady stated she was sent here by her county judge because she would need a "Caesar" operation and they understood Indianapolis had a good city hospital. The fact that these people went directly to a publicly supported institution, ignoring the township trustee, raised the question as to whether or not they could legally be sent back to their native state.

Of course, the natural inclination is to care for the sick, but there is also the ever complaining taxpayer with whom to reckon. He may be pondering over the sample count made by township trustees which showed that 73% of relief cases in 25 of the larger Indiana townships came from states having either no poor relief or less than that given in Indiana. "Charity begins at home," thought the township trustees of Indiana, and the Legislature agreed with them, hence the new settlement law.

Recognizing that medical attention and hospitalization accounts for a large share of expenditures, the new law was phrased accordingly. Indigents must now live in Indiana three years (formerly one year), of which one year must be in a certain township, to be eligible for poor relief, or "*free medical aid or hospitalization, or public institutional care or assistance at public expense in whole or in part.*" Time spent in any institution or hospital shall not be counted towards gaining settlement as formerly.

Provisions for deportation of indigents have been further strengthened. Formerly, many were deported by court order to the states from whence they came but returned immediately for relief or medical attention. Local authorities were powerless to do anything but send them back again, meanwhile being obliged to give necessary care and help. The new law provides that persons who have been deported but return and wilfully make application for assistance before settlement has been acquired, may be fined and imprisoned. The language does not prohibit a person from moving about freely to obtain employment or better his condition, however. It is only operative when application for assistance or medical attention is sought at public expense. The settlement law is aimed at the chronic indigent.

It might also be added, in this connection, that other old laws regarding the responsibility of townships for hospitalization and medical care of indigents remain the same. These are humane provisions providing township responsibility for the care of the poor where they reside, until lawfully deported. If there is no emergency, proper authorization must be obtained from the township trustee for medical care or hospitalization. In emergencies, the service may be first rendered, then the township required to pay the cost, assuming that the patient is an indigent. Township responsibility for true emergency aid was definitely settled by the Indiana Supreme Court in the case of *Newcomber vs. Jefferson Township*, 181 Ind. 1, 103 N.E. 843. Other sections of the 1935 Acts of Indiana generally govern in such cases pertaining to medical attention.

### INDIGENT CARE BY STATE HOSPITALS

For four and one-half years ending December, 1937, the townships of Indiana spent for medical and hospital care almost eight million dollars, an average monthly cost per relief case of \$2.46 or 18.8 per cent of the total relief cost. In 1937, the total cost to Indiana townships was one and one-half million dollars or an average of \$3.49 per relief case. Medical care and hospitalization rose to 23.4% of the total cost of relief. The townships of four counties spent over 60% of their relief money for medical care and hospitalization, the highest being 66%. Townships of two counties spent from 50-60%; twenty-six counties from 40-50%; twenty-eight from 30-40%; sixteen from 20-30% while only seven spent less than 20% for that purpose. All of this is related to emphasize the intense interest townships and trustees



have in plans for medical care and hospitalization of indigents.

Another new law enacted by the legislature provides that after July first, this year, any Judge of a Circuit, Criminal, Probate, Superior or Juvenile Court is empowered to commit any person over 16 years of age to a State University Hospital, if that person is unable to defray the expense of treatment. Acceptance of applicants by the hospital is not compulsory, and the privilege of selection will undoubtedly be of benefit to the hospitals in their training routine.

An interesting feature is that the county from which the patient is sent is to pay the expense, except in the case of crippled children. Heretofore, either the township cared for them at township expense, they went to state hospitals at state expense, or to a clinic or institution where local taxpayers paid the bill.

A few townships have boasted that all of their sick and ailing poor were cared for by state hospitals while others complained bitterly that very few patients were admitted. Inasmuch as every taxpayer of the state contributes toward the upkeep of state hospitals, it has been inequitable to accept disproportionate quotas from certain townships, irrespective of the relief load or tax contributions.

This new law presents a conflict in residence requirements for medical service which may present a difficulty. The law under which townships administer relief requires three years residence in Indiana but this new law requires only one. An indigent who has lived in Indiana only two years and eleven months may be denied aid by his township and be deported, yet his county judge may grant his application for medical aid under this new law because he has lived here the required one year to qualify.

A regrettable fact is that local committing judges do not have proper facilities for a thorough investigation of the ability of applicants to pay for hospitalization at the state hospitals. With

the constantly increasing burden of our many programs for assistance, an investigation as to ability to pay is just as important as the relief to be given.

This new hospitalization law is regarded as an attempt in the right direction but a more thorough study should be made and corrective amendments proposed at the next session of our General Assembly.

#### THE "CHISELERS" LAW

This is entirely new and does not amend any old laws. It is aimed at recipients of relief or medical attention who make an application truthfully as an indigent but whose financial status afterwards changes. Under old laws, there was no legal recourse if the indigent acquired assets and continued to accept relief or medical assistance.

Relief agencies, hospitals and institutions have found that after application is made, many persons receive unemployment compensation, insurance of some nature, employment or other income or assets but continue to accept the free assistance given at public expense. Such persons may have been deserving in the beginning but the later acquisition of income or assets places an entirely different aspect on the situation. The indigent may have collected damages for his injury, yet he was not bound to say so to those who gave in order that he be made comfortable.

This new law provides that if any person knowingly misrepresents any fact in the application, or who, after having accepted poor relief, or "care, attention, hospitalization, or other services, and whose financial condition and ability to pay have materially changed after filing the original application," fails to report such material change, he is guilty of a misdemeanor. A fine of not more than \$100 and a jail sentence not to exceed six months, or both, are provided. This is supplemental to existing laws but is not applicable to offenses provided for in the welfare acts under which Federal funds are used. Those laws have similar provisions.

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#### PNEUMONIA COMMITTEE MAKES RECOMMENDATIONS

The Pneumonia Committee of the Indiana State Medical Association met at Indianapolis April 12, 1939, passed certain resolutions and made recommendations to the State Board of Health relative to pneumonia and the pneumonia program.

The committee was of the opinion that an educational program on pneumonia for the profession, through the county medical society in cooperation with the district councilor, should be carried on. It urged that such educational program should be shared by the lay population through the different county medical societies, the State Medical Association and the State Board of Health.

A recommendation was made that the present laboratories, each manned by a competent pathol-

ogist, be used as typing stations and that in those communities where such laboratories did not exist, the State Board of Health, through cooperation with the medical society or societies, approve competent typing facilities.

It urged further that a distributing point for the distribution of pneumonia serum be designated in each councilor district. It was suggested that the more common types of pneumonia serum be stored at such distributing stations and the rare types be made available to the profession at the State Board of Health. The committee recommended further that such stations should be set up in places which would be open at all hours of the day or night.

The committee suggested further that the initial request of the physician for pneumonia serum should not exceed 120,000 units unless a specific reason could be shown why the initial request should call for more than that amount. If a satisfactory result were not obtained after giving the initial amount of the serum, the type should be rechecked. The committee urgently requested that all patients be desensitized before the serum is administered, and recommended that the State Board of Health furnish information regarding approved method of desensitization.

A further recommendation was that the State Board of Health confine the expenditure of the appropriation strictly for specific serum. It was felt that any chemotherapy should not be furnished by the State.

A resolution was adopted urging that all physicians report their cases of pneumonia through the regular morbidity reports to the local health officers having jurisdiction in order that more accurate statistics may be obtained.

The committee recommended further that the State Board of Health prepare a simplified form for reporting, which would be filled out by the physician following the administration of the serum. Such reports would be on file for further

study relative to the efficacy of pneumonia serum. The following outline was suggested:

Type -----  
 Was blood culture positive? -----  
 Were X-rays made? -----  
 Lobes involved -----  
 Amount of serum used -----  
 Type of serum -----  
 Complications -----  
 Reactions -----  
 Was unused serum returned to the Laboratory? ---  
 Results -----

The committee recommended further that adequate publicity be given the medical profession for the fine work that has been done in this state on the use of sulfapyridine in the treatment of pneumonia.

Committee members present at the meeting were Drs. C. J. Clark, Indianapolis; Paul Stier, Fort Wayne; W. C. McFadden, Shelbyville; R. C. Bayley, Lafayette, and H. C. Wadsworth, Washington. Drs. Paul Crimm of Evansville and A. S. Giordano of South Bend were not present. Guests who attended the meeting were Dr. C. J. Culbertson, Indianapolis; Dr. Verne K. Harvey, Indianapolis; Mr. Thomas A. Hendricks, Indianapolis and Dr. K. G. Kohlstaedt, Indianapolis.

## SYPHILIS CONTROL COMMITTEE

A meeting of the Syphilis Control Committee of the Indiana State Medical Association was held in the offices of the State Board of Health on March 25, 1939. The committee reports the following findings:

Dr. W. C. Kelly, of the Bureau of Venereal Diseases, reported in detail the program and the progress being made in the venereal disease project sponsored by the State Board of Health and the Federal Government in the Calumet region.

Dr. Kelly also explained that the State Board of Health was able to supply large amounts of publicity material to communities. Charts of various kinds were displayed about the conference room. This material is available to medical societies and boards of health in the state.

RECOMMENDATION I. That three communities be designated as test communities in which the reporting of cases be attempted. These communities were to be South Bend, Terre Haute, and a third or smaller community. South Bend and Terre Haute were selected because of the fact that a large number of cases of syphilis had already been found in these two communities through surveys. The third community was not named. In the two communities designated, it is the desire of the committee to try the reporting of cases by number. . . . An investigator will be assigned by the State to the local Board of Health. He will check from time to time with physicians

to see whether or not their cases are under proper treatment. All details of this program were not worked out.

RECOMMENDATION II. The Syphilis Control Committee has repeatedly gone on record to the effect that the laboratory of the State Board of Health should refuse to do blood tests for industry. In the future this committee suggests that a more rigid investigation be conducted by the State Board of Health to determine the source of blood specimens, and refusal to run the tests be made where it is determined that the source of blood specimens is from some commercial firm. This committee does not consider any man employed in industry to be indigent.

RECOMMENDATION III. It is the consensus of the committee that it is unethical conduct on the part of any physician to send blood specimens to the State Laboratory for examination from any patient or industry that can afford to pay for same.

Respectfully submitted,

THE SYPHILIS CONTROL COMMITTEE

F. R. NICHOLAS CARTER, M.D., *Chairman*,  
 WEMPLE DODDS, M.D.,  
 MINOR MILLER, M.D.,  
 L. G. MONTGOMERY, M.D.,  
 ERNEST O. NAY, M.D.,  
 B. W. RHAMY, M.D.



## UNDER THE CAPITOL DOME

The semi-annual meeting of the State Board of Medical Registration and Examination will be held in Indianapolis on July 11.

### BUREAU OF FOOD AND DRUGS FINDS ILLEGAL PRESERVATIVES IN MEAT PRODUCTS

Numerous cases of unsanitary conditions and frequent use of illegal and harmful preservatives and fillers in meat products in the Indiana meat industry, both wholesale and retail, have been reported by Harold V. Darnell, chief of the bureau of food and drugs in the State Board of Health.

Meat products, including sausage, hamburger, etc., purchased by the bureau at retail and wholesale outlets throughout the state have been found, upon chemical analysis, to contain harmful chemical preservatives and fraudulent cereal "fillers" and "binders," Mr. Darnell said. During 1938, twenty-three per cent of the meat products were found to be illegal for sale. Discoveries of violations of food laws in the meat industry resulted in the filing of eighty-six criminal charges in local courts, and convictions were obtained in all instances, Mr. Darnell reported.

Recently, the bureau chief said, a total of 141 slaughter-houses were inspected, and of these, fifty-three were graded "poor" or "bad", and orders to clean up were issued. "To the credit of the industry, it must be mentioned that prompt compliance was obtained in the majority of instances," Mr. Darnell said.

During the past year, a total of 1,973 public eating places were inspected and graded by the state bureau's inspectors. More than 300 orders were issued to improve sanitary conditions of the properties or equipment.

"In performing its regulator work under the Sanitary Food Law, the bureau conducts investigations and makes sanitary inspections of all types of food manufacturing and handling establishments," Mr. Darnell said. "Inasmuch as the sanitation of public eating and drinking establishments is of direct importance to the public health, special emphasis has been placed on the inspection of restaurants, taverns, soda fountains, etc. Unfortunately, the personnel of the bureau is too small to periodically inspect all of the state's 10,000 eating establishments, so a program of close cooperation with city and district health departments is maintained. In addition, all new and change of ownership establishments in the state are required to register with the State Board of Health and must undergo inspection before operations commence.

"In conducting an inspection of a public eating establishment, particular attention is paid to the water and milk supplies, toilets, and sewage disposal facilities, and the facilities for washing and 'sanitization' of dishes," the chief said.

Mr. Darnell said that the new Indiana food, drug, and cosmetics act will greatly assist the bureau in its efforts to maintain safe food, drugs, and cosmetics. The new act, adopted by the 1939 session of the General Assembly, provides uniformity with the new Federal law and outlaws all harmful or fraudulent food, drugs, and cosmetics. Restrictions also are placed on the manufacture and sale of "new" drugs and drugs which are dangerous to health when used in the prescribed dosage. Labels of packaged goods are, for the first time, required to bear information that will provide the consumer with complete knowledge of what he is purchasing. Registration with the State Board of Health now is required of all manufacturers and distributors of food, drugs, and cosmetics, thus enabling the bureau to conduct periodical investigations of manufacturing practices for the purpose of maintaining sanitation and preventing illegal products from entering intrastate commerce.

Work on the new \$300,000 building for the State Board of Health at the Indiana University medical center is progressing rapidly. Officials expect the structure to be ready for occupation by the middle of October. At that time the health department probably will move to the new building from its present quarters in the State House Annex.

### DISTRIBUTION OF PNEUMONIA SERUM

The State Board of Health has approved the plan for distributing pneumonia serum advanced by the pneumonia committee of the Indiana State Medical Association.

Dr. Verne K. Harvey, secretary of the board, said that distribution points will be established in each of the association's districts, and twelve to fifteen such distribution centers will be operated. Hospitals or laboratories centrally located will be used for the distribution.

The 1939 session of the General Assembly appropriated \$75,000 a year for purchase of pneumonia serum, and certain other serums and anti-toxins. A decision by Omer S. Jackson, attorney general, issued recently, holds that the board cannot use any of this fund for purchase of sulfa-pyridine, which has revolutionized pneumonia treatment.

Dr. Harvey said that it will not be possible to determine the exact significance of the new law until the state has passed through one entire pneumonia season, including the winter and early spring months of 1939-1940.

Until the distribution centers throughout the state are set up, the health department will continue to dispatch serum, upon order of physicians, from the health board's headquarters in Indianapolis. A twenty-four hour service is maintained for this work. The board sends the serum by bus, train, special messenger, or in any manner that is quickest in particular instances.

## Deaths

WILLIAM M. DAVIS, M.D., of Worthington, died March eighteenth, after an illness of several years. Dr. Davis was sixty-seven years old. He graduated from the Marion-Sims College of Medicine, St. Louis, Missouri, in 1899, and practiced in Coal City for five or six years before locating in Worthington, where he had been in practice for thirty years.

JOHN C. GRANDSTAFF, M.D., of Preble, died at his home March thirty-first, aged sixty-six. He graduated from the Eclectic Medical College at Cincinnati, Ohio, in 1899. Dr. Grandstaff started practice at Hoagland, and in 1901 moved to Preble, where he had since maintained his office. He had served both as county coroner and county health officer of Adams county, and was a member of the Adams County Medical Society, the Indiana State Medical Association, and the American Medical Association.

WALLACE C. SARBER, M.D., of Argos, died in a hospital at Plymouth, April sixth, after an illness of four weeks. Dr. Sarber was sixty-six years of age, and had practiced in Argos for more than forty years. He was a graduate of the Fort Wayne College of Medicine in 1896, and was a member of the Marshall County Medical Society, the Indiana State Medical Association, and the American Medical Association.

CLARENCE C. BASSETT, M.D., of Goodland, died April 12, aged fifty-nine. Dr. Bassett graduated from the Wisconsin College of Physicians and Surgeons, Milwaukee, in 1906. He was an infantry captain during the World War and had been active in American Legion and Reserve Officer's Association affairs. Military funeral services were held, followed by American Legion burial ceremonies at the Indiana State Soldier's Home near Lafayette. Dr. Bassett was a member of the Jasper-Newton County Medical Society, the Indiana State Medical Association, and the American Medical Association.

VICTOR H. MARCHAND, M.D., of Haubstadt, died March nineteenth, following injuries received in an automobile accident several days prior to his death. Mrs. Marchand also lost her life in the crash, preceding Dr. Marchand in death. Dr. Marchand was seventy-six years of age, and had practiced medicine in Haubstadt for fifty-four years. He was graduated from the University of Louisville School of Medicine in 1883, and was an honorary member of the Gibson County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

ORRA M. FLACK, M.D., of Boswell, died March eleventh, due to injuries received in a fall at his home several weeks prior to his death. Dr. Flack was seventy-two years of age, and was a graduate of the Medical College of Ohio, Cincinnati, in 1893. He had practiced in Monon, Ambia and Oxford, later moving to Boswell, where he remained in practice until his death. He was a member of the Benton County Medical Society, the Indiana State Medical Association, and the American Medical Association.

EDWIN M. TROOK, M.D., of Marion, died April twelfth, aged seventy-six. Dr. Trook graduated in 1892 from the Rush Medical College, University of Chicago, following which he served three years in the medical corps in the Philippines. He returned to Marion in 1903 and had practiced there since. Dr. Trook was an honorary member of the Grant County Medical Society, the Indiana State Medical Association, and the American Medical Association.

HARRIET STEMEN MACBETH, M.D., retired physician of Fort Wayne, died March eighteenth, following a long illness. She was sixty-six years of age, and had practiced in Fort Wayne for forty-four years. Dr. Macbeth graduated from the Fort Wayne College of Medicine in 1873, and was a former member of the Allen County Medical Society, the Indiana State Medical Association, and the American Medical Association.

ARCHIE SCHUYLER BROWN, M.D., of Indianapolis, died March twelfth, following a short illness. Dr. Brown was sixty-two years of age. He graduated from the Medical College of Indiana, Indianapolis, in 1904, and began his practice in Clay City. For the past fifteen years he had been practicing in Indianapolis, and was a former member of the Indianapolis Medical Society, the Indiana State Medical Association, and the American Medical Association.

JAMES F. FREEMAN, M.D., of Evansville, died March ninth, aged ninety-three. Dr. Freeman was born in England, and graduated from Oxford University in 1875. He had practiced in Howell and Evansville.

CHARLES E. GRAYSTON, M.D., retired physician of Huntington, died March twenty-ninth, aged eighty-one. Dr. Grayston graduated from the Medical College of Cincinnati in 1881.

WARDLAW EWELL, M.D., of Crawfordsville, died March twelfth, at the Ben Hur Sanitarium, in Crawfordsville, of which he was the owner. Dr. Ewell was seventy-two years of age. He graduated from the Kentucky School of Medicine, in Louisville, in 1891.



JOHN C. KELLY, M.D., of Mitchell, died March tenth, in Wilmington, Delaware, at the home of a daughter. He was graduated from the College of Physicians and Surgeons, of Baltimore, in 1882, and had practiced in Mitchell until his retirement a few years ago. He was eighty-two years of age.

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THOMAS S. TURNER, M.D., of Lebanon, died March eleventh at his home in Lebanon, following an illness of six months. Dr. Turner was seventy-four years of age, and had practiced in Lebanon for fifty years.

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FRANK J. NEIFER, M.D., of South Bend, died March eleventh, aged seventy-nine. Dr. Neifer graduated from Eclectic Medical College, of Cincinnati, in 1884, and had practiced in South Bend for forty-two years.

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GEORGE B. REESE, M.D., of Brazil, died April tenth, aged seventy-three, after a brief illness. Dr. Reese graduated from the National Normal University, College of Medicine, of Lebanon, Ohio, in 1893, and had practiced in Clinton and Brazil.

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ARCHIBALD S. LOCKHART, M.D., of Indianapolis, died April thirteenth, aged sixty-eight. He graduated from the Medical College of Indiana, Indianapolis, in 1896, and had practiced in Stockwell, Indianapolis and Southport.

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FRANKLIN B. LADD, M.D., of Fort Wayne, died March fourteenth, aged seventy-three. He was a graduate of the College of Physicians and Surgeons of Keokuk, Iowa, in 1888, and had practiced in Fort Wayne until his death.

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FRANK W. FOXWORTHY, M.D., former Indianapolis physician, died at the home of his daughter in Florence, Alabama, March fifteenth, after a short illness. He was born at Kentland, Indiana, in 1873. Dr. Foxworthy was a graduate of DePauw University and the Medical College of Indiana, Indianapolis (1897) and practiced in Indianapolis from 1901 to 1925 when he moved to Miami Beach. He served as chief surgeon in the 160th Indiana Regiment during the Spanish-American War and received the Congressional medal for valor in action. During the years of his practice in Indianapolis, he was a frequent contributor to THE JOURNAL, most of the articles dealing with gastro-intestinal diseases, one on the "Advantages and Disadvantages of Joining the Medical Reserve Corps," and one on "Medical South America."

## News Notes

William H. Howard, M.D., has announced removal of his offices from the Hammond building to 406 First Trust Building, Hammond.

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The twenty-fourth annual meeting of the American Association of Industrial Physicians and Surgeons with the American Conference on Occupational Diseases and Industrial Hygiene will be held at the Hotel Statler, Cleveland, Ohio, June 5, 6, 7, and 8, 1939. Interested members of the Indiana State Medical Association are invited to attend. Detailed information may be obtained from A. G. Park, 540 North Michigan Avenue, Chicago.

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The twelfth graduate fortnight of the New York Academy of Medicine will be held from October 23 to November 3, 1939. The subject of this year's fortnight is "The Endocrine Glands and Their Disorders." Complete program and registration blank may be secured by addressing Dr. Mahlon Ashford, The New York Academy of Medicine, 2 East 103rd Street, New York, N. Y.

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Dr. E. B. Norris who has been practicing at Shipshewana has moved to Middlebury where he is associated with Dr. M. A. Farver. Dr. Norris is continuing his practice in Shipshewana, also.

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At the recent meeting of the American College of Physicians in New Orleans, Dr. James D. Bruce of Ann Arbor, Michigan, was made president-elect of the organization. Dr. O. H. Perry Pepper of Philadelphia assumed the presidency for the coming year, and other officers to serve with him are Dr. Allen A. Jones, Buffalo, New York, first vice-president; Dr. Gerald B. Webb, Colorado Springs, second vice-president; and Dr. J. Morrison Hutcheson, Richmond, Virginia, third vice-president.

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Dr. Edward McArdle of Fort Wayne will serve as medical advisor for the committee named by the Fort Wayne Council of the Knights of Columbus in the formation of a unit of blood donors. Donors will include K. of C. members and their families who will have their blood typed and recorded at a local hospital.

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Dr. John T. Kime of Petersburg celebrated his fiftieth year in the practice of medicine in Pike County, March eleventh.

Dr. Samuel J. Rubley has moved from Detroit, Michigan, to Logansport, where he is associated in the special practice of ophthalmology and otolaryngology with Dr. B. W. Egan.

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The ninety-third annual meeting of the Ohio State Medical Association will be held May 3 and 4, 1939, at the Hotel Commodore Perry in Toledo, Ohio.

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The sixty-third annual convention of the American Association on Mental Defects will be held at the Palmer House in Chicago, May 3 to 6, 1939.

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The forty-fourth annual convention of the American Academy of Ophthalmology and Otolaryngology will be held in Chicago, October 8 to 13, 1939, at the Palmer House.

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The fifteenth scientific sessions of the American Heart Association will be held at the Hotel Jefferson, St. Louis, Missouri, May 12 and 13, 1939.

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Dr. C. Basil Fausset, of Indianapolis and New York City, is spending the month of May with Mr. and Mrs. Guy R. Brooks of Indianapolis.

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Miss Helen Fetzer of Keyser, W. Va., and Dr. James F. Spigler of Terre Haute were married in Keyser, W. Va., March fourteenth.

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The Lake County Tuberculosis Association held its annual meeting at the Lake county sanatorium, March thirtieth, and paid tribute to the late Dr. J. O. Parramore at a short memorial service. The public was invited to attend the memorial service.

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Five Indianapolis physicians were honored at a complimentary banquet given by Phi Rho Sigma medical fraternity in Indianapolis, March twenty-fifth. They were Dr. Louis Burckhardt, Dr. James H. Taylor, Dr. John T. Wheeler, Dr. Thomas B. Noble and Dr. John W. Sluss.

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Tri-State Medical Society officers for 1939-1940 were elected at the April meeting held in South Bend. They are Dr. D. R. Brasie, Flint, Michigan, president; Dr. Burt Hibbard, Lima, Ohio, vice-president; Dr. E. B. Gillette, Toledo, Ohio, secretary; and Dr. L. T. Rawles, Fort Wayne, treasurer.

The seventh anatomical and clinical course in otolaryngology was given at the Indiana University School of Medicine in Indianapolis, April 17 to 29. Thirty-four otolaryngologists from twenty-one states attended and included representatives from states as widely separated as Wisconsin, Maine, Texas, California and Oregon. The course was organized by Dr. John F. Barnhill who was present and helped to conduct this year's program. Registrants for the course were guests at a dinner at the Indianapolis Athletic Club, April sixteenth, for which members of the Indianapolis Ophthalmological and Otolaryngological Society were hosts.

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The Indiana Academy of Ophthalmology and Otolaryngology held its twenty-third annual meeting in Indianapolis, April fifth. Speakers included Dr. C. W. Rutherford, Indianapolis; Dr. R. A. Sage, Indianapolis; Dr. C. E. Gillespie, Seymour; Dr. C. H. McCaskey, Indianapolis; Dr. H. A. Van Osdol, Indianapolis; Dr. Edmund B. Spaeth, Philadelphia; Dr. J. J. Littell, Indianapolis; Dr. Carl J. Rudolph, South Bend; and W. B. Townsend, Indianapolis. New officers for the society include Dr. M. W. Manion, Indianapolis, president, and Dr. E. W. Dyar, Indianapolis, secretary-treasurer.

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The American Legion National Child Welfare Division has published pamphlets on Official Child Welfare Month, listing subjects for special consideration in April, as a part of its program of Insurance of Child Health through the "Indiana Plan" of Immunization and Treatment—a workable plan to protect the health of the children of the United States. With slight changes to bring the plan within the scope of the American Legion National Child Welfare Program, the outline of the "Indiana Plan" is being followed. Detailed circulars outlining the purposes of the plan have been published and distributed.

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Dr. Herman Baker, of Evansville, has been appointed a member of the Medical Advisory Committee of the National Red Cross; the purpose of the committee is to advise the chairman of the American Red Cross and his staff on things medical. The committee is composed of the following: Dr. Livingston Farrand, chairman; Dr. Thomas Parran; Dr. W. S. Leathers, dean of Vanderbilt University Medical School; Dr. David P. Barr, professor of medicine at Washington University; Dr. Martha Eliot of the Children's Bureau; Rear Admiral Ross T. McIntire of the U. S. Navy; Major General Charles R. Reynolds of the U. S. Army; Dr. Edwards A. Park, professor of pediatrics at Johns Hopkins, and Dr. Baker.



The official call to the officers, fellows and members of the American Medical Association has been issued for the ninetieth annual session of the Association to be held in Saint Louis, Missouri, May fifteenth to May nineteenth. The House of Delegates will convene on Monday, May fifteenth. Scientific assemblies will open with a general meeting on Tuesday, May sixteenth. Section meetings will be held on Wednesday, May seventeenth, in the morning and afternoon.

#### INDIANA EXHIBIT AT THE A. M. A. MEETING

Under the title "Middletown Modernizes Medicine," the Delaware-Blackford County Medical Society is preparing an exhibit for the meeting of the American Medical Association in St. Louis, May 15 to 19, 1939. The exhibit will deal with a comprehensive program of medical and lay education which has been developed in the Delaware-Blackford County Medical Society. The program has been designed as an application of the Indiana Plan for local needs, and is especially directed towards preventive medicine. Medical post-graduate education is a particularly interesting and valuable part of the project.

The medical educational part of the program includes such activities as:

County society program conducted by members of the society and following the topics-of-the-months of the Indiana Plan.

Postgraduate study by means of weekly hospital ward rounds.

Muncie Academy of Medicine meetings.

Clinical Pathological Conferences.

Hospital staff meetings and surgical staff meetings.

The lay educational portion of the program includes monthly health exhibits, health education lectures, weekly radio programs, and county fair exhibits.

This program is being amplified by the addition of new projects from time to time as seem desirable.

If you attend the St. Louis session of the American Medical Association, be sure to look up the exhibit. Make the booth your meeting place and urge your friends to see the exhibit.

#### SECRETARIES' DINNER AT I. U. POSTGRADUATE MEETING

Informal and unofficial though it was, the secretaries' dinner held at the Riley Hospital in Indianapolis, April tenth, the opening day of the annual I.U. Postgraduate Course brought out much interesting discussion on points having to do with national and state legislation and other problems facing the medical profession at the present time. Dr. A. M. Mitchell, chairman of the Secretaries Conference Committee, of the State Association, presided at the dinner which was attended by some fifty secretaries and county

medical society officers from over the state. The officers of the State Association, and Dr. Verne Harvey and Dr. Howard Mettel attended the meeting and made short talks and answered questions.

Among those who were present at the dinner were M. A. Austin, Anderson; John Palm, Brazil; C. L. Wise, Camden; A. L. Spinning, Covington; J. M. Kirtley, Crawfordsville; W. T. Lawson, Danville; William E. Sutton, Edinburgh; J. A. Davis, Flat Rock; J. W. Thom and Julia Thom, Gosport; S. M. Cotton, Goldsmith; M. F. Daubenheyer, Holton; G. H. Haggard, Hope; Norman M. Beatty, C. G. Culbertson, William M. Dugan, W. D. Gatch, V. K. Harvey, C. H. McCaskey, Howard B. Mettel, Herman Morgan, Cleon Nafe, and A. F. Weyerbacher, all of Indianapolis; K. K. Kraning of Kewanna; J. C. Burkle, Lafayette; C. G. Kern and E. A. Rainey of Lebanon; G. R. Daniels and R. W. Lavengood of Marion; Donald A. Covalt and J. C. Silvers of Muncie; A. R. Kresler and L. E. Kresler of Rensselaer; C. R. Hofmann, Richmond; A. E. Stinson, Rochester; C. Harstad, Rockville; G. H. Kamman, Seymour; A. M. Mitchell, Terre Haute; F. P. Albertson, Trafalgar; L. H. Hopkins, Versailles; and F. M. Whisler, Wabash.

#### INDIANA UNIVERSITY NEWS NOTES

Approximately 500 physicians from all sections of Indiana attended the annual postgraduate course of the Indiana University School of Medicine April 10-14. A series of clinics each day and general sessions at night, featuring noted out-of-state speakers, made up the program.

Speakers at the night sessions, held in the auditorium of the school, were: April 10—Dr. W. M. Firor, Johns Hopkins University medical school, "Recent Tetanus Experiments"; April 11—Dr. D. D. Hart, Duke University medical school, "Wound Infection"; April 12—Dr. Morton Willcutts, chief surgeon of the United States Naval Hospital, Washington, "The Medical Profession in National Defense"; April 13—Dr. W. C. C. Cole, Detroit University medical school, "Death in Newborn from Suffocation," and April 14—Dr. John Toomey, associate professor in pediatrics at Western Reserve Medical School, Cleveland, O., "Contagious Diseases."

The Wednesday night (April 12) session was the annual home-coming event for the Indiana University school of medicine. Dr. Willcutts is an alumnus of the University and, as chief commanding medical naval officer, is one of the nation's most widely known men in medicine.

The Friday night (April 14) session was open to the general public and dealt particularly with prevention of contagious diseases.

Dr. R. N. Harger of the Indiana University medical school faculty spoke at a session, April 11, on "The Drinking Driver as a Medico-Legal Problem." The annual dinner of secretaries of county medical societies was held at the James Whitcomb Riley Hospital for Children, April 13. (Report of this meeting under "News Notes" in this issue.)

More than 30 clinics on a wide variety of subjects were held throughout the week, terminating with a clinic in ear, nose and throat Saturday morning.

Preparations for the session were made under the direction of Dr. W. D. Gatch, dean of the Indiana University school of medicine.

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Initiation services for 25 students of the Indiana University School of Medicine were held recently, by the Phi Chi honorary medical fraternity. The initiation for the following men was held at the Columbia Club, Indianapolis:

Pierre Delawter, Joe Smith, Robert Jordan, Robert Bill, John Schechter and Paul Hurt, all of Indianapolis; Alan D. Houser, North Liberty; Welbon Britton, Beech Grove; James Katterjohn, New Albany; Joe Jewett, Carmel; J. Paxton Powell, Upland; Merle Bundy, Salem; James Goodpasture, Salem; Harold Rendel, Mexico; Thomas Dittmer, Kouts; Robert Cannon, Hammond; James Humphrey, Hammond; Brooker Master, Plymouth; Harold Burdette, Roachdale; J. Robert Roth, Boonville; J. B. Bennett, Warren; Melvin Denny and Forest Denny, Madison; William Kurtz, Westfield; Oliver Hitch, Princeton.

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Alumni and faculty members of the Indiana University School of Medicine played a prominent part in general sessions and clinics of the mid-west conference of the American College of Surgeons in Indianapolis March 22-24.

Twelve clinics were held at the Indiana University Medical Center the opening day of the conference and nine were held at the Center Thursday. The conference, one of the outstanding medical meetings of the year, was attended by approximately 1,000 physicians and surgeons from Indiana, Illinois, Iowa, Michigan, Ohio and Wisconsin.

Presence of the Medical Center, described as "one of the outstanding in the country" by Dr. Malcolm T. MacEachern, associate director of the American College of Surgeons, was a major factor in the selection of Indianapolis for the conference.

Alumni and faculty members who conducted clinics included: Drs. Alfred S. Jaeger, Gustavus B. Jackson, Murray N. Hadley, Cleon A. Nafe, Dudley A. Pfaff, Charles A. Weller, Karl M. Koons, Homer G. Hamer, Walter P. Morton, William E. Tinney, William N. Wishard, Henry F. Beckman, Charles O. McCormick, Gerald W. Gustafson, J. William Hofman, Ross C. Ottinger,

Murray N. Hadley, Homer H. Wheeler, Ben B. Moore, Carl Habich, Herbert F. Thurston, Arthur F. Weyerbacher, Henry O. Mertz, John E. Owen, J. K. Berman, John A. Pfaff, Ernest Rupel, Richard C. Travis, David H. Sluss, Karl R. Rudell, Glen J. Pell, George J. Garceau, Joseph W. Ricketts, Percy E. McCown, Gordon W. Batman, Paul K. Cullen, Henry O. Mertz, Walter P. Morton, D. L. Smith, Frank B. Ramsey, James N. Collins, Walter P. Moenning.

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Dr. John L. Ferry, graduate of the Indiana University School of Medicine with the class of 1936, and native of Akron, Ind., has been appointed clinical assistant in the department of medicine of the University of Chicago.

Dr. Ferry will work with Dr. George Dick in his new position. He attended Purdue University two years, then transferred to Indiana University at Bloomington. He was among the top students throughout medical school.

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For the first time in the 14 year's history of James Whitcomb Riley Hospital, only one new case of infantile paralysis was received at the hospital and Indiana University Medical Center during the past year, the joint executive committee of the hospital has been informed.

Staff members advised the committee that the dearth of new cases was "very unusual," but that new outbreaks may be expected in the future. Two years ago the disease approached the epidemic stage and a number of patients were received last year.

Statewide interest in the hospital was reflected in a report of Mrs. John W. Cravens, hostess, that 1,245 persons from 58 counties were conducted personally over the hospital and Medical Center from July 1, 1938, to March 1, 1939. Twelve states other than Indiana and two foreign countries were included among the visitors. Notable among the visitors was Douglas Corrigan, the trans-Atlantic flier.

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#### ANNOUNCEMENT!

THE SCIENTIFIC EXHIBIT COMMITTEE OF THE INDIANA STATE MEDICAL ASSOCIATION ANNOUNCES THAT APPLICATIONS FOR SPACE IN THE SCIENTIFIC EXHIBIT FOR THE FORT WAYNE MEETING OF THE ASSOCIATION NOW ARE BEING ACCEPTED. APPLICATIONS FOR SPACE AND COMMUNICATIONS MAY BE ADDRESSED TO THE HEADQUARTERS OFFICE OF THE ASSOCIATION OR MAY BE SENT TO DR. CLYDE CULBERTSON, COMMITTEE CHAIRMAN, AT INDIANA UNIVERSITY MEDICAL SCHOOL, 1040 WEST MICHIGAN STREET, INDIANAPOLIS.



## SOCIETIES AND INSTITUTIONS

### THE INDIANA STATE MEDICAL ASSOCIATION

#### Executive Committee

March 19, 1939.

Meeting called to order at 9:45 a. m.

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; E. M. VanBuskirk, M.D.; M. A. Austin, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Guests: M. T. MacEachern, M.D., Chicago; H. B. Mettel, M.D.; Norman M. Beatty, M.D.

#### Membership Report

Number of members on March 17, 1939-----	2,661
(83 honorary members)	
Number of members on March 17, 1938-----	2,573
Gain over last year-----	88
Number of members Dec. 31, 1938-----	3,083

#### 1939 Annual Session at Fort Wayne, October 10, 11 and 12

Final draft of commercial exhibit announcement approved for mailing.

Preliminary draft of the program for the meeting brought to the attention of the Committee. The Committee authorized inviting Dr. George Lang as the banquet speaker.

The Committee instructed the secretary to inform the delegates to the American Medical Association to invite the newly elected president-elect of the American Medical Association to be the guest of honor and speak at the banquet the night of October 11.

#### Monthly Statements

The monthly statements of Receipts and Expenditures for December, January and February for the Association committee and THE JOURNAL, were approved.

#### Legislative, Legal and Social Security Matters

##### National:

Committee was informed in regard to the introduction of the Wagner bill, S. 1620.

The Committee felt that the president of the State Association is the one who should represent Indiana if such representatives are called to Washington for a hearing on the Wagner bill or any other legislation having to do with an extension of medical and health services.

##### Local:

Report on legislative session to appear in the April issue of THE JOURNAL approved by the Committee.

Legislative bulletins received from Illinois, Iowa and Ohio show that these states have the same problems which we have had in Indiana.

#### Sickness Insurance and Socialized Medicine

Correspondence between Dr. G. D. Scott and Will Hays concerning production by the movies of films promoting socialized medicine brought to the attention of the Committee.

Article in the New York Times of February 2 in regard to group medical care for 16,000 New York members of the United Office and Professional Workers brought to the attention of the Committee. This is a union group affiliated with the C. I. O. The program calls for a panel of 100 physicians and dentists from which these 16,000 workers may choose their own physician. Among those backing the experiment is Robert F. Wagner, Jr., who serves in the New York legislature, and Dr. I. S. Falk, chief of the division of health studies of the Social Security Board, who was the big proponent for compulsory health insurance at the National Health Conference last July. Medical fees are as follows: For first office visit, including full physical

examination, \$1.50; subsequent visits, \$1.00; home visits \$2.00.

Attention of Committee called to article by Dr. Charles Gordon Heyd, past president of the American Medical Association, which appeared in the "New Year Issue 1939 of America's Future."

#### Farm Security Administration

Report made that the Farm Security Administration program was turned down by the Fayette-Franklin County Medical Society and accepted by the Daviess-Martin County Medical Society.

#### State Board of Medical Registration and Examination

The Board's appropriation was cut 10 percent by the last legislature which will tend to lessen still further the effectiveness of the Board which is hampered at the present time because of lack of funds.

#### Annual registration.

Although bills calling for a \$2.00 annual registration fee on the part of those practicing the healing art in Indiana were presented by the members of the Budget Committee with the backing of the State Board of Medical Registration and Examination, these bills were not pushed by the Legislative Committee of the Indiana State Medical Association due to the fact that several counties had gone on record opposing this legislation and the question of annual re-registration was voted down at the meeting of the House of Delegates at South Bend.

#### Foreign Doctors in the United States.

This problem was discussed by the Committee. The following ruling in regard to the admission of foreign physicians exists in Indiana: Any graduate of a school located outside of the United States and its possessions must repeat his senior year in a medical school recognized by the Indiana State Board of Medical Registration and Examination and then he must take the State Board examination. But a foreign graduate who possessed a license obtained by examination in any state with which Indiana reciprocated prior to January 11, 1938, would be eligible to an Indiana license by reciprocity provided he met the minimum requirements.

#### "Indiana Plan"

Delaware-Blackford County Medical Society is preparing a display, "Middletown Modernizes Medicine," for showing at the American Medical Association meeting at St. Louis. Upon order of the Council the Budget Committee set aside \$500 for expenses of printing pamphlets and constructing the "Indiana Plan" display booth at the A. M. A. meeting.

Letter received from Milt D. Campbell, assistant to the director of the National Child Welfare Division of The American Legion, in regard to the adoption and promotion by The Legion of the "Indiana Plan."

#### Organization Matters

The Executive Committee authorized the appointment of Dr. W. U. Kennedy of Newcastle as Director of Research on Sickness Insurance for the Indiana State Medical Association.

The Committee authorized the nomination of Dr. P. H. Veach of Staunton, Indiana, for Affiliate Fellowship in the American Medical Association. This action was taken upon the motion of Dr. VanBuskirk, seconded by Dr. Austin.

#### Suggested change in By-Laws.

The attorney for the association is to have prepared for consideration at the next meeting of the Executive Committee a suggested change in the By-Laws enabling societies which are made up of more than one county to be allowed a delegate to the state meeting from each component county.

Letter received from Dr. O. M. Graves, secretary of the Gibson County Medical Society, that dues in that society had been raised to \$15.00.

### **Rollen Waterson Appointed Full-Time Secretary of Lake County Medical Society.**

The Committee is much impressed with Rollen Waterson, new Lake County Society executive secretary, and it expressed the hope that other counties in the state would follow Lake County's lead and set up full-time headquarters offices.

### **Lake County Bulletin.**

The Lake County Medical Society asked whether or not the State Association would object if it sent its bulletin statewide. The Committee was of the opinion that, as several county societies already are putting out a bulletin, perhaps it would be best for Lake County to send its bulletins to the presidents and secretaries of the county medical societies in the state, the officers and councilors of the State Association, the officers of the district societies, and the members of the Executive and Legislative Committees of the State Medical Association. The Committee felt also that it would be all right to send the bulletin to each doctor in the neighboring counties of Lake County.

### **Survey of Medical Care for All the People.**

Final reports upon the survey sent to the American Medical Association and articles in regard to the survey appear in the March and April issues of *THE JOURNAL*. Letters from Dr. William F. Braasch of Rochester, Minnesota, chairman of the national survey committee, brought to the attention of the Committee.

### **State Board of Health**

The Committee expressed its regret that Governor Townsend had vetoed the State Board of Health reorganization bill but it expressed its hope that Dr. Verne K. Harvey, secretary of the Board, would not resign.

Comment by Dr. Frederick Jackson, which appeared in *The Voice of the People* in *The Indianapolis Star*, against the State Board of Health reorganization measure, brought to the attention of the Committee.

Upon the motion of Dr. VanBuskirk, seconded by Dr. Austin, the Committee recommended that a letter concerning the survey on maternal and new-born deaths be sent out by the State Medical Association. The request that this letter be sent came from Dr. Howard B. Mettel, chief of the Bureau of Maternal and Child Health of the State Board of Health as a recommendation of the Sub-Committee to Study Maternal Morbidity and Mortality Rates for Indiana.

The policy of the United States Public Health Service in referring letters which it has received from persons asking for treatment by the Health Service to local officers, brought to the attention of the Committee. Copies of these letters are referred to the secretary of the State Board of Health and to the secretary of the State Medical Association.

### **Group Hospitalization and Voluntary Health Insurance**

Albert Stump, attorney for the State Medical Association, stated to the Committee that he differed with the Attorney-General when that official stated that the group hospitalization bill which was passed at the last session of the legislature but pocket vetoed by the Governor had a faulty title. In the opinion of Mr. Stump the title was not faulty and the bill would have stood up from a constitutional standpoint.

Reports that numerous groups including hospital groups and individual physicians would attempt to start group hospitalization plans of their own brought to the attention of the Executive Committee.

The Committee authorized that all information concerning these plans for group hospitalization and voluntary health insurance be forwarded to Dr. N. K. Forster, chairman of the Permanent Study Committee on Health Insurance and National Medical Situation of the State Association, for study and consideration, with the sug-

gestion that recommendations be made to the House of Delegates for future action.

Editorial which appeared in *The Indianapolis News* containing the suggestion that a group be formed to set up a hospital insurance plan in order to test the legality of such an organization, brought to the attention of the Committee. The Committee also was informed that the Michigan State Medical Society is presenting bills to its legislature to form hospital and non-profit medical care groups. Similar information has been received from Ohio.

Letter received from F. K. Helsby, executive secretary of the Jackson County Medical Society, Kansas City, Missouri, in regard to this question and stating that in some states contention had arisen between hospital and medical groups which is unfortunate.

### **Venereal Disease Control**

The report of the Committee on Syphilis Control was referred by the Committee to Dr. Weyerbacher for comment and criticism and Dr. Weyerbacher is to make a report at the next meeting of the Committee.

Syphilis survey started in Lake County brought to the attention of the Committee.

### **Postgraduate**

#### **Sectional Meeting of the American College of Surgeons, March 22 to 24.**

Dr. M. T. MacEachern, executive secretary of the American College of Surgeons, was a guest of the Committee for luncheon. The Committee offered to cooperate in the coming meeting in any way possible.

Postgraduate meeting of the Indiana University School of Medicine scheduled for April 10 to 15.

Letters from Dr. Herman Baker, chairman of the Postgraduate Committee, brought to the attention of the Executive Committee. The Committee approved of Dr. Baker's suggestion that a meeting of the Postgraduate Committee be held within the near future.

Letter from Dr. Howard B. Mettel, chief of the Bureau of Maternal and Child Health of the State Board of Health, offering speakers, exhibits, educational material, etc., for district medical meetings, brought to the attention of the Committee.

Folder upon an obstetrical course given at Indiana University, which has proved very successful, brought to the attention of the Committee.

### **Secretaries' Conference**

Announcement made that the following committee had been appointed to arrange for the 1940 program: A. M. Mitchell, Terre Haute, chairman; P. E. Yunker, Evansville; R. L. Hane, Fort Wayne; J. V. Cassady, South Bend; R. W. Bruner, Jeffersonville, and D. A. Covalt, Muncie.

### **Welfare Department**

The Committee approved the suggestion of Dr. Herman Baker, the chairman, that within the near future a meeting be held of the Liaison Committee with the Indiana State Department of Public Welfare and the officials of the Department.

The Sub-Committee on Rules and Regulations Governing Maternity Hospitals which was appointed last year by the Liaison Committee of the State Board of Health is to report through its chairman, Dr. E. O. Asher, at the next meeting of the Executive Committee.

### **Medical Economics**

#### **Meeting at Chicago on medical patents.**

Request was made of Dr. James M. White, councilor of the Tenth District, to get someone to attend this meeting.

#### **Letter of complaint in regard to smallpox vaccination charges.**

Complaint was made by an Indianapolis manufacturer that some of his employees were asked to pay an un-



reasonable price for smallpox vaccination. Word was given the Committee that the majority of physicians charged \$1.00 for this service. The secretary was instructed to send a copy of this letter to the Council of the Indianapolis Medical Society.

**Northwest Regional Conference.**

Report made upon the Northwest Regional Conference which was held at Chicago on February 12. Copies of the talks made before the conference are available to anyone who desires them.

**Special automobile license plates.**

Letter received from Dr. Olin West complimenting the Executive Committee upon its action in vetoing the idea that physicians should have special automobile license plates.

**Indigent Sick.**

Letter from M. R. Ray, State Compensation Officer of the Works Progress Administration, in answer to complaint by South Bend physicians that patients were being sent to selected doctors rather than being allowed to choose their own physicians, brought to the attention of the Committee. The Committee felt that as this is a federal ruling nothing can be done locally in regard to it.

Letter from Charles M. Dawson, secretary of the Indiana Township Trustee's Association, concerning medical relief bills, brought to the attention of the Committee. The Committee felt that the question of township relief should be given careful study and consideration by each local medical society. The particular complaint from a township trustee states that for the month of January, 1939, his relief bills were as follows:

Groceries -----	\$ 53.10
Hospital -----	276.10
Medical (doctors) -----	558.96
Fuel -----	5.75

One of the members of the Committee spoke of the system that was being worked out in Cass county for the care of the indigent sick and suggested that the secretary obtain information in regard to it in order that this matter may come up for further attention at the next meeting of the Executive Committee.

**Suggested Publication of Abstract Journal in Clinical Medicine.**

Letter was received from the Medical Library Association of New York concerning the founding of an abstract journal in clinical medicine. The Committee suggested that this letter be forwarded to the American Medical Association and that we be guided by the suggestion of the A. M. A.

**Conservation of Vision**

Report made to the Committee upon the meeting held on March 5 by the new Committee on Conservation of Vision. Suggestion made that copies of the report of the committee be mailed to members of the Executive Committee.

Letter received from Dr. Carl J. Rudolph of South Bend, author of the resolution which created the Conservation of Vision Committee, containing suggestions which would change the set-up of the present committee. The Executive Committee felt that it would be better to leave the committee as it is and suggested that Dr. Rudolph take this matter up at his section meeting during the annual session of the State Association and if the matter is approved by the section, have section representatives present it to the House of Delegates. The Committee was of the opinion that it would be unconstitutional for the president of the Association to appoint any committee member for more than one year unless such appointments were specifically authorized by the House of Delegates.

**Suggestion Concerning Change in Constitution**

Change in wording to be studied by Albert Stump and to be discussed at the next meeting of the Executive Committee.

**The Journal**

No advertisements are to be taken from collection agencies until further instruction. This action was adopted unanimously by the Committee upon the motion of Dr. VanBuskirk, seconded by Dr. Austin.

**Advertising for convention JOURNAL.**

With the statement from Dr. VanBuskirk that he felt that the physicians of Fort Wayne would not object to advertising from local drug stores, the Committee approved taking advertisements from these stores for the convention issue of THE JOURNAL (September).

The Committee rejected the request for exchange from the Terapeutica al Dia magazine, Havana, Cuba.

**INDIANA STATE MEDICAL ASSOCIATION  
EXECUTIVE COMMITTEE**

April 10, 1939.

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; E. M. Van Buskirk, M.D.; M. A. Austin, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Guests: H. B. Mettel, M.D.; V. K. Harvey, M.D.; N. M. Beatty, M.D.; Dan Bower, M.D.

Minutes of the meeting of March 19, 1939, approved upon the motion of Dr. McCaskey, seconded by Dr. Van Buskirk.

Upon the motion of Dr. McCaskey, seconded by Dr. Austin, the bills were approved for payment.

**Membership Report**

Number of members on March 31, 1939-----	2825
(85 honorary members)	
Number of members on March 31, 1938-----	2781
Gain over last year-----	44
Number of members Dec. 31, 1938-----	3083

**1939 Annual Session at Fort Wayne, October 10, 11 and 12**

**Commercial exhibit:**

- 26 spaces sold
- 17 spaces to be sold

**Scientific program:**

- a. Dr. George Lang, banquet speaker, has accepted.
- b. A. M. A. delegates notified to invite the president-elect of the A. M. A. to the Indiana meeting. Letters received from delegates stating that they would see that this is done.

It is understood that the Indiana Academy of Ophthalmology and Otolaryngology will transmit to the State Medical Association headquarters a resolution which it passed at its recent meeting asking that no section meeting on ophthalmology and otolaryngology be held during the Fort Wayne session this year. The reason for this is because the dates of the state meeting conflict with the annual meeting of the American Academy of Ophthalmology and Otolaryngology which will be held in Chicago. Upon the motion of Dr. McCaskey, seconded by Dr. Austin, the Committee approved the omission of the ear, eye, nose and throat section program this year.

Dr. Howard Mettel stated that the State Pediatric Society is to meet in Indianapolis this week and perhaps the pediatricians would ask the State Association to allow them to take the place left vacant by the omission of the ear, eye, nose and throat section program at the Fort Wayne meeting.

**State Association Picnic**

Suggestion made by Dr. Will C. Moore of Muncie that the Indiana State Medical Association have a picnic

in May or June. Dr. Moore offered his farm for that purpose. The Committee felt that they would be very pleased to accept such an invitation as individuals but they did not believe that the State Association should sponsor such a picnic. The Committee felt that if the Delaware-Blackford County Medical Society desired to sponsor such a picnic it would be all right for them to send invitations to anyone whom the society might desire to invite.

#### Legislative, Legal and Social Security Matters

##### National:

The Wagner Bill, S. 1620. Hearing postponed from April 15 until sometime after May 8.

The Committee studied correspondence and clippings in regard to this bill.

Letter received by a physician in Indiana from a Congressman which reads in part as follows:

"Personally, I do not think that the proposed Health Program is getting very far here, for the reason, that the anti-spending policy throughout the country is just beginning to fall on fertile ears in Congress."

Announcement made by Dr. Harvey that he is to attend the Surgeon General's conference which will be held in Washington April 20 to 25.

The Committee was of the opinion that it would be in a better position to know what might be expected following the Surgeon General's conference than at the present time. The Committee frankly felt that as the situation exists at the present time perhaps no action will be taken on the Wagner bill at this session of Congress.

Letter from Dr. H. S. Ramsey of Bloomington asking for material that can be used in the newspapers and by speakers before luncheon clubs and lay groups in opposing socialized medicine read to the Committee. Although there is a great deal of this material, no brief statements are available which would fill such a request as made by Dr. Ramsey. The Committee discussed this lack of material and instructed the secretary to see what might be done in regard to this matter.

The Committee was of the opinion that the best method by which to oppose socialized medicine is to use the methods adopted by the American College of Surgeons during its recent meeting in Indianapolis, that is, say nothing of socialized medicine but speak of the great contributions which medical science has made to civilization. The Committee felt that meetings throughout the state similar in character to the meeting held for the laity during the meeting of the College of Surgeons would be worthwhile. Dr. McCaskey was authorized by the Committee to attempt to obtain copies of the papers and copies of the charts used by the various speakers of the American College of Surgeons at the lay meeting.

##### Local:

Numerous legislative bulletins from Michigan, Illinois, Iowa and Kansas brought to the attention of the Committee.

##### Sickness Insurance and Socialized Medicine

Physicians in New York City oppose health insurance in a straw vote 3 to 1.

Article which appeared in a recent issue of *Time* magazine states that Bernays, the advertising man who handled the publicity for the Cost of Medical Care Committee, is handling the publicity for the New York medical profession in the fight against socialized medicine.

Letter from Dr. John S. Leffel, president of the Fayette-Franklin County Medical Society, brought to the attention of the Executive Committee. Dr. Leffel has the following two suggestions as to how to combat state medicine:

"Personally I have a feeling that two of the best things that can be done to avoid Socialized Medicine are: (1) Stop making profits on the treatment of the poor and indigent; and (2) Is it not proper to give the medical profession a little more favorable publicity than they have had in the past? I feel that a meeting like the May meeting with some laymen invited might be a step in that direction.

Report made that Dr. R. G. Leland, director of the Bureau of Medical Economics of the American Medical Association, addressed the Indiana Pharmaceutical Association meeting at Lafayette, giving the medical viewpoint on socialized medicine.

##### Farm Security Administration

Agreement with the Daviess-Martin County Medical Society brought to the attention of the Committee. Copies of this agreement are to be sent to each member of the Committee.

##### State Board of Medical Registration and Examination

Following is a report on foreign physicians licensed in Indiana within recent years, classified as graduates of medical schools in the United States and graduates of foreign medical schools:

Year Ending	U. S.	Canada	European Countries
June 30			
1930-----	181	1	1
1931-----	163	1	1
1932-----	129		2
1933-----	139		2
1934-----	177		
1935-----	148	2	2
1936-----	174	4	2
1937-----	185	1	4
1938-----	169	2	6
Total--	1,465	11	20

Since Indiana does not require citizenship, the approximate numbers shown above are classified in just three groups: United States, Canada, and all European countries.

Approximately fifty made inquiry or application to the State Board of Medical Registration and Examination during the year 1938 who were ineligible for licensure under the Foreign Medical School graduate regulation.

##### The "Indiana Plan"

The Delaware-Blackford County Medical Society display for the American Medical Association meeting is being compiled.

Folders put out by the American Legion on the "Indiana plan" brought to the attention of the Committee. The secretary was instructed to send each member of the Committee a copy of this folder.

##### Organization Matters

*Suggested change in By-Laws.* The attorney of the Association is to prepare for consideration at the next meeting of the Committee a change in the By-Laws enabling societies made up of more than one county to be allowed a delegate to the state meeting for each component county.

*Suggested change in Constitution.* The attorney of the Association is also to submit to the Committee a suggested change in the Constitution in regard to the purposes of the Association.

##### State Board of Health

"All quiet on the State House front."

Recommendation of the Committee on the Conservation of Vision to the president of the State Association that an oculist be placed on the State Board of Health brought to the attention of the members of the Committee and the director of the State Board of Health.



### Group Hospitalization and Voluntary Health Insurance

Dr. Dan Bower reported to the Committee that he had had a conference with the Governor, suggesting that representatives from the State Medical Association and representatives from the State Hospital Association should hold a conference and discuss a plan for instituting group hospitalization under the present laws.

The Committee referred all matters concerning group hospitalization and voluntary health insurance plans to Dr. N. K. Forster and the Permanent Study Committee on Health Insurance and National Medical Situation of the State Association. It is hoped that Dr. Forster will be ready to report to the Executive Committee within the next sixty days.

Report on the bills on group hospitalization and voluntary health insurance pending in the Ohio state legislature made to the Committee. It looks as if the group hospitalization bill will pass but that the voluntary health insurance measure would fail because it does not have the complete and wholehearted support of the members of the medical profession of Ohio.

The Committee noted the battle which is now in progress in New York State between the hospital association and the state medical society over the expansion of hospital service to include medical care. The hospital association desires the control of the extended services while the medical society feels that it should control any set-up which would render medical services to the public. The members of the Committee were supplied several days ago with a bulletin by the headquarters office in regard to the control and management of medical expense indemnity associations.

Letters from F. K. Helsby, executive secretary of the Jackson County Medical Society, Kansas City, Missouri, J. D. Laux of Chicago, and Dr. C. F. Vohs of St. Louis, containing suggestions as to what we in Indiana might do concerning group hospitalization plans since the veto by the Governor of the measure passed at the last session of the legislature, studied by the Committee. The Committee authorized the secretary to send copies of these letters to Dr. Forster, chairman of the state committee whose special duty it is to study and report upon this subject.

### Venereal Disease Control

Dr. Weyerbacher is to report upon the report of the Committee on Syphilis Control at the next meeting of the Committee.

### Postgraduate

The Postgraduate Committee is to meet upon the call of Dr. Herman Baker Thursday noon, April 13, at the Columbia Club, Indianapolis.

Letter from Dr. Frederick Jackson brought to the attention of the Committee and a copy sent to Dr. Baker, chairman of the Postgraduate Committee.

### Welfare Department

The Committee felt that it is just as well that the Liaison Committee with the Indiana State Department of Public Welfare does not meet until something definite is known in regard to the Wagner bill.

The Committee discussed in general matters that are up for consideration before the Crippled Children's Bureau of the Welfare Department and a report was made that a meeting of the Liaison Committee with the Indiana Crippled Children's Bureau is to be called by Dr. Oliver Greer, director of the Bureau, within the near future.

### Indigent Sick

Report made to the Executive Committee that one of the township trustees in Fountain county had refused to pay hospital bills for a period of two years and medical service bills for a period of six months. Several days ago this matter was discussed with Leo Smith, attorney for the Township Trustees' Association, and the Committee hopes that the Fountain-Warren County Medical

Society will give details concerning this matter to the headquarters office so that Mr. Smith may have the full details of the case. Mr. Smith states that it is the hope of the Township Trustees' Association to aid in clearing up these misunderstandings that arise so often between physicians and township trustees. He says that he will be glad to receive these complaints and do what he can to help straighten out these situations which are causing so much trouble.

The Executive Committee is of the opinion that each local county medical society should do everything possible to see that township trustee bills are kept within reason and that the public receives adequate services in township trustee cases.

Mr. Smith has prepared an article which will appear in the May issue of THE JOURNAL in regard to the changes in the indigent relief laws of the state which have to do with medical care.

### Abstract Journal in Clinical Medicine

The letter in regard to this matter from the American Library Association was referred to the American Medical Association and the answer from the American Medical Association in regard to the suggested founding of such an abstract journal has been referred to the Editorial Board of THE JOURNAL.

### WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

The following is the annual report of our president, Mrs. Maurice B. Van Cleave, to the president of the National Auxiliary, Mrs. Charles C. Tomlinson, Omaha, Nebraska.

"The Indiana Auxiliary members are happy indeed to send greetings to our National President, officers and members. The splendid help and guides given us have inspired us to work with a zealous spirit. Our theme is 'Broadcast Health Education.' We are helping to weave a beautiful tapestry with a colorful story of medical life in 1939. Our pioneer doctors designed the original pattern with a rare foresight to future enlargement and we women today are picking up the threads of service and weaving to help make a wonderful tapestry, to be called 'Health for all the people.'

"The 'Indiana Plan' of preventive medicine, topics of the month, medical legislation, radio broadcasts, and national health programs, upon which the physicians have been focusing their attention, are of vital interest to us. We heartily thank the National and State Medical Associations for sending us such splendid literature.

"We have established a circulating library and filing service. The study groups have helped us to educate ourselves to a degree of intelligent articulation. Each of our 450 members do their full share of disbursing authentic modern health trends through their contacts in various clubs and civic organizations. Our fine year's history will reflect splendid service.

"Much effort is being expanded on organization and membership. A few other activities have been programs at hospitals, schools, and clubs, furnishing libraries and milk for children's hospitals, helping with Hospital Day and health exhibits, student loan funds, programs on legislative trends, topics of the month, and current events in medical science. Occupational therapy has been established in Terre Haute in pediatric departments of the hospitals.

"We publish a 'Hoosier News Letter.' The State JOURNAL carries a column for us and furnishes reprints for the members. The counsel given by the advisory board is greatly appreciated.

"I was greatly benefitted by attending the national board meeting in Chicago, and am anticipating much inspiration and information from the national convention in St. Louis May 14-19."

## PROGRAM

**17TH ANNUAL CONVENTION  
WOMAN'S AUXILIARY TO AMERICAN MEDICAL  
ASSOCIATION**

**St. Louis, Missouri**

**May 14-19, 1939**

Headquarters, Woman's Auxiliary, Hotel Chase,  
St. Louis, Missouri

*Registration*

Saturday, May 13—1 P.M. to 4 P.M.

Sunday, May 14—10 A.M. to 4 P.M.

Monday, May 15 to May 18—8:30 A.M. to 4 P.M.

*Sunday, May 14*

10:00 A.M. - Registration. Hostess Committee to receive visitors in afternoon.

4:00 P.M. - Tea for the National Board in honor of

7:00 P.M. Mrs. Charles C. Tomlinson: Mrs. Willard Bartlett, hostess. Executive Board of St. Louis Auxiliary, Chairmen and Vice-Chairmen, and sub-committees, assisting.

*Monday, May 15*

9:00 A.M. National Board meeting, Empire Room, Hotel Chase.

1:30 P.M. - Visits to private Gardens of St. Louis

4:45 P.M. County and Tea (complimentary). Bus Fare 75c.

*Tuesday, May 16*

9:00 A.M. - Formal opening of Convention, General

12:00 M. Session, Empire Room, Hotel Chase.

12:30 P.M. Luncheon at St. Louis Woman's Club, (\$1.25).

1:45 P.M. Optional tours \$1.00

(a) Park Area

(b) Arts Tour.

4:00 P.M. Tea, St. Louis University Woman's Club (complimentary).

8:00 P.M. Opening Meeting of the American Medical Association, Municipal Auditorium (Special busses from Hotel Chase to Auditorium, round trip 50c).

*Wednesday, May 17*

9:00 A.M. General Session, Empire Room, Hotel Chase.

1:00 P.M. Auxiliary Luncheon—Chase Club (\$1.25).

2:30 P.M. Exhibits and Music, Empire Room. Conferences.

Evening Reception, Supper and Program (complimentary). The Woman's Auxiliary to the St. Louis County Medical Society extends an invitation to all visiting ladies. Motion pictures U. S. Seal Fisheries and Fur Fashion Show.

*Thursday, May 18*

9:00 A.M. Post Convention. Executive Committee Meeting.

10:00 A.M. Post Convention. Board of Directors Meeting.

12:30 P.M. - Mississippi Steamboat Trip for men and

3:30 P.M. women, (\$1.00). Light refreshments available at reasonable prices. (Transportation from Hotel Chase by special busses for those who buy tickets in advance (50c). Shuttle busses from Third street to boat, connecting with regular transportation lines.)

7:00 P.M. Annual "Bring-Your-Husband" Dinner, Hotel Chase, (\$2.00).

9:00 P.M. Reception in honor of President, American Medical Association, and Ball, Hotel Jefferson, Transportation from Hotel Chase to Jefferson Hotel (25c).

*Friday, May 19*

Women's Golf Round and Blind Bogey. Trophies and prizes offered.

*Committee on Arrangements*

American Medical Association

Chairman, Women's Activities, Mrs. Willard Bartlett, 53 Westmoreland Place, St. Louis, Missouri.

Chairman, Hotel Reservations, Neil S. Moore, M.D., 910 Syndicate Trust Building, St. Louis, Missouri.

**SULFAPYRIDINE IN PNEUMONIA**

(Kohlstaedt-Page)

*Continued from page 273*

Actually no damage to the kidneys has been observed in our patients as measured by urea clearance and routine examination of urine specimens. Whether nuclei for stones have been left in the urinary tract which later may develop cannot be foretold.

We have been unable to establish a strict relationship between the level of sulfapyridine in the blood, the amount administered, and the occurrence of toxic manifestations. Nevertheless it appears of importance to know the level of sulfapyridine in the blood as it gives a rough measure of the adequacy of treatment.



### AMERICAN CONGRESS ON OBSTETRICS AND GYNECOLOGY COMMITTEE ON MATERNAL AND INFANT WELFARE

The American Congress on Obstetrics and Gynecology is sponsored by the American Committee on Maternal Welfare. This Committee is composed of member organizations with a representative from each, forming the Board. The member organizations include the various national and sectional obstetrical and gynecological associations, hospital associations, public health organizations, and nursing associations.

The Central Association on Obstetrics and Gynecology proposed an American Congress on Obstetrics and Gynecology to study the present day problems on obstetrics and gynecology and their solution. The American Committee on Maternal Welfare was asked to sponsor this Congress. The Congress will be held in Cleveland, Ohio, September 11-15, 1939. The Committee expresses the purpose of the Congress, "To present a program of our present-day medical, nursing, and health problems, from a scientific, practical, educational, and economic viewpoint as far as they relate to human reproduction and maternal and neonatal care." This Congress is not in any sense a legislative body and naturally will take no action relative to maternal and infant care.

There will be sessions for each professional group in the morning with round table discussions. The afternoon meetings will have papers of general interest to all members attending the Congress. The public will be invited to the evening sessions where there will be speakers of national prominence.

The program for the physicians will include among many others such subjects as pregnancy associated with: thyroid disease, heart disease, diabetes, tuberculosis, nutritional factors, carcinoma of the female genitive tract, and abortions.

The Congress is not planned as a meeting for specialists in any sense of the word but for all physicians who are interested in the problem of maternal and child welfare. Your Committee highly recommends this Congress as a week of postgraduate work which should be worth much more to the physician than the time and expense incurred for the trip. The physicians of this state should be well represented at this Congress.

The membership fee of \$5.00 includes membership in The American Committee on Maternal Welfare and registration in The American Congress on Obstetrics and Gynecology. Application blanks and further information may be secured from your chairman, or from The American Congress on Obstetrics and Gynecology, 650 Rush Street, Chicago, Illinois.

The chairman of the membership committee for the State of Indiana is Dr. Gerald W. Gustafson, Indianapolis, Indiana.

### LOCAL SOCIETY OFFICERS

Officers for the following societies have been elected:

#### CRAWFORD COUNTY:

President, F. R. Gobbel, M.D., English  
Secretary-treasurer, G. B. Hammond, M.D., English

#### TIPTON COUNTY:

President, A. E. Stouder, M.D., Kempton  
Vice-president, G. H. Warne, M.D., Tipton  
Secretary-treasurer, S. M. Cotton, M.D., Goldsmith

#### WARRICK COUNTY:

President, W. C. Stover, M.D., Boonville  
Secretary-treasurer, Clyde J. Munns, M.D., Newburgh

#### WELLS COUNTY:

President, George S. Morris, M.D., Bluffton  
Vice-president, H. Brooks-Smith, M.D., Bluffton  
Secretary-treasurer, W. A. Gitlin, M.D., Bluffton

### LOCAL SOCIETY REPORTS

CASS COUNTY MEDICAL SOCIETY members met at the Cass County Hospital in Logansport, March sixteenth, to hear Dr. George Garceau of Indianapolis talk on "Fractures of the Ankle and Fractures of the Hips." Twenty-four were present for the dinner meeting, including six members of the Carroll County society.

\* \* \*

CLAY COUNTY MEDICAL SOCIETY held a meeting in Brazil, March twenty-first, at the Clay County Hospital. Dr. C. J. Clark of Indianapolis spoke on the results of experimental work with sulfapyridine in pneumonia.

\* \* \*

DEARBORN-OHIO COUNTY MEDICAL SOCIETY held a dinner meeting at Aurora, March thirtieth. Dr. Ralph S. Chappell of Indianapolis talked on "Hearing Defects."

\* \* \*

DECATUR COUNTY MEDICAL SOCIETY met at Greensburg, Indiana, March 15. This was a meeting of the Society with the trustees of Memorial Hospital, to discuss plans for a new addition to the hospital. Dr. W. C. Callaghan, of Greensburg, gave a case history of a patient with Malta fever. Attendance numbered eight.

\* \* \*

DELAWARE-BLACKFORD COUNTY MEDICAL SOCIETY met at the Hotel Roberts in Muncie, March twenty-first, for a dinner meeting. Dr. Roscoe Beeson of Muncie talked on "Speech and Hearing Defects" and the "Maladjusted Child." Discussants were Dr. Clay Ball and Dr. E. F. Tindall, both of Muncie. Attendance numbered thirty.

The society went on record as approving and offering cooperation with the mental hygiene clinics of the Indiana Department of Public Welfare.

Three members of the society were elected to serve on the Board of Directors of the Muncie Medical Business Bureau: Dr. W. C. Moore (3 years), Dr. T. R. Owens (2 years), and Dr. L. R. Mason (1 year).

\* \* \*

DEKALB COUNTY MEDICAL SOCIETY members met at the Auburn Hotel, March thirtieth, for a luncheon and business meeting

\* \* \*

ELKHART COUNTY MEDICAL SOCIETY held an annual meeting, Thursday, April sixth, at the Hotel Elkhart. This was an all-day meeting, beginning at nine o'clock in the morning and closing after a dinner meeting in the evening. Speakers included Dr. M. H. Draper, Fort Wayne; Dr. R. B. Sanderson, South Bend; Dr. Myron D. Miller, Columbus, Ohio; Dr. Arthur H. Parmalee, Chicago; Dr. John L. Lindquist, Chicago, and the after-dinner speaker, Dr. Russel L. Haden, Cleveland, Ohio.

\* \* \*

FAYETTE-FRANKLIN COUNTY MEDICAL SOCIETY held a meeting at the McFarlan Hotel, April eleventh, to hear Dr. C. J. Clark of Indianapolis discuss "Sulfapyridine in the Treatment of Pneumonia." Attendance numbered eighteen.

\* \* \*

FLOYD COUNTY MEDICAL SOCIETY members met in New Albany, April fourteenth. Dr. William H. Garner of New Albany presented a paper on "Goiter." Attendance numbered nineteen.

FORT WAYNE (ALLEN COUNTY) MEDICAL SOCIETY met in the Chamber of Commerce Building, Fort Wayne, March twenty-eighth, to see motion pictures on "The Treatment of Eclampsia," and "Forceps Delivery." Attendance numbered twenty-seven. Dr. Herman A. Meyer was elected to membership.

At the April fourth meeting, held at the Lutheran Hospital, speakers were Drs. A. N. Ferguson, L. W. Elston, S. G. Welty, and Juan Rodriguez. Dr. Elston showed motion pictures of "Cesarean Section." Attendance numbered fifty.

\* \* \*

FOUNTAIN-WARREN COUNTY MEDICAL SOCIETY members met at Kingman, April sixth, to hear Dr. Paul Merrell of Indianapolis talk on "Early Care of Recent Head Injuries." Attendance numbered thirty-four.

\* \* \*

GIBSON COUNTY MEDICAL SOCIETY held a meeting at the Emerson Hotel, Princeton, March 13. Guest speaker was Dr. Leonard A. Ensminger, of Indianapolis, who presented a paper on "Industrial Fractures." Attendance numbered twenty-three.

\* \* \*

GIBSON COUNTY MEDICAL SOCIETY held a meeting at the Emerson Hotel, Princeton, April tenth. Dr. R. F. Monroe of Louisville, Ky., read a paper on "Menstrual Irregularities—Diagnosis and Treatment." Attendance numbered twenty-four.

\* \* \*

GREENE COUNTY MEDICAL SOCIETY members met at the Freeman-Greene County Hospital, at Linton, April thirteenth. Dr. F. A. Van Sandt, of Bloomfield, talked on "Cancer." Twelve members were present.

\* \* \*

HENRY COUNTY MEDICAL SOCIETY held a meeting at Henry County Hospital, March sixteenth. Guest speaker was Dr. Gerald Kempf of Indianapolis who talked on "Uses and Actions of Sulfanilamide." Attendance numbered twenty-two.

\* \* \*

INDIANAPOLIS MEDICAL SOCIETY members held a joint meeting with the Indiana Tuberculosis Association in the Hotel Lincoln, April eighteenth. Cochairmen for the meeting were Dr. M. R. Lohman of Fort Wayne and Dr. Heiman G. Morgan, Indianapolis. Speakers were Dr. J. Arthur Myers, Minneapolis, Minnesota; and Dr. Paul A. Teschner of the Bureau of Health Education, American Medical Association.

\* \* \*

JAY COUNTY MEDICAL SOCIETY members held a meeting April seventh at the Portland Country Club to hear Dr. Homer H. Wheeler of Indianapolis talk on "Diseases of the Rectum in General Practice."

\* \* \*

MIAMI COUNTY MEDICAL SOCIETY held a meeting at Dukes Miami County Hospital, March thirty-first. Dr. Fred Mallott of Converse gave a short presentation on "Sulfapyridine", and presented cases. Cases also were presented and discussed by Drs. R. E. Barnett and E. E. Shrock.

\* \* \*

NORTHEASTERN INDIANA ACADEMY OF MEDICINE met at the Kendall Hotel, Kendallville, March twenty-third, for a dinner meeting. "Socialized Medicine" was discussed by Drs. James L. Wyatt, C. B. Parker, and D. F. Cameron of Fort Wayne, and Dr. A. J. Rarick, of Cromwell. A round table discussion followed.

PERRY COUNTY MEDICAL SOCIETY members met at Troy, Indiana, March twenty-eighth. Dr. R. R. Acre, of Evansville, was guest speaker. His subject was "Prostatism."

\* \* \*

PORTER COUNTY MEDICAL SOCIETY met at Valparaiso, March twenty-eighth, to hear Dr. A. V. Partipilo of Chicago discuss "Intestinal Obstruction." Attendance numbered eighteen.

\* \* \*

RANDOLPH COUNTY MEDICAL SOCIETY held a meeting at Randolph County Hospital, Winchester, March thirtieth. Dr. Andrew M. Brenner talked on "Electrocardiography and its Practical Application." Attendance numbered thirteen.

At the April tenth meeting of the society, Dr. Russell Hippensteel of Indianapolis presented a paper on "Anemias of Early Life."

\* \* \*

ST. JOSEPH COUNTY MEDICAL SOCIETY held a meeting at the Jefferson Plaza, South Bend, March thirtieth. Dr. Ernest Dietl talked on "Diseases of the External Ear." W.P.A. accident case panel physicians were created. Attendance numbered fifty-five.

\* \* \*

TIPPECANOE COUNTY MEDICAL SOCIETY members met at Lincoln Lodge, April eleventh, to hear Dr. J. Arnold Baigen of Rochester, Minnesota, talk on "Pre-operative and Medical Treatment of Intestinal Obstruction." Sixty-six attended the clinical meeting in the afternoon; forty-six attended the dinner meeting.

\* \* \*

TRI-COUNTY MEDICAL SOCIETY (DAVIESS, MARTIN and PIKE COUNTIES) held a dinner meeting at Washington, March twenty-eighth, to hear Dr. George De Tarr, of Winslow, talk on "Influenza." Attendance numbered twenty-one.

\* \* \*

WABASH COUNTY MEDICAL SOCIETY members met at North Manchester, April fifth. Dr. M. B. Catlett of Fort Wayne was the guest speaker. His subject was "The Gall Bladder." Attendance numbered eighteen.

INDIANA STATE BOARD OF HEALTH

Bureau of Communicable Disease

Monthly Report, February, 1939

	Feb. 1939	Jan. 1939	Dec. 1938	Feb. 1938	Feb. 1937
Diseases					
Tuberculosis	127	123	202	148	151
Chickenpox	500	706	492	524	380
Measles	44	45	53	2435	36
Scarlet Fever	1005	986	765	780	738
Smallpox	449	296	182	175	17
Typhoid Fever	11	4	13	3	1
Whooping Cough	101	92	66	86	209
Diphtheria	106	99	108	218	36
Influenza	1490	49	73	83	819
Pneumonia	111	110	107	107	184
Mumps	264	151	137	129	85
Polio-myelitis	3	0	0	1	2
Meningitis	2	6	5	6	12
Amebic Dysentery	2	0	0	1	0
Malaria	1	0	0	0	0
Tularemia	7	14	111	2	0



Monthly Report, March, 1939

Diseases	Mar. 1939	Feb. 1939	Jan. 1939	Mar. 1938	Mar. 1937
Tuberculosis .....	132	127	123	111	213
Chickenpox .....	406	500	706	389	446
Measles .....	56	44	45	4245	172
Scarlet Fever.....	817	1005	986	668	1016
Smallpox .....	198	449	296	173	17
Typhoid Fever.....	4	11	4	3	3
Whooping Cough.....	128	101	92	94	283
Diphtheria .....	55	106	99	135	50
Influenza .....	1287	1490	49	74	357
Pneumonia .....	159	111	110	77	141
Mumps .....	247	264	151	88	222
Poliomyelitis .....	3	3	0	2	2
Meningitis .....	3	2	6	8	12
Trachoma .....	1	0	1	1	0
Malaria .....	1	1	0	0	0
Undulant Fever .....	3	0	0	2	1
Ophthalmia Neonatorum	1	0	0	0	0

BOOKS

BOOKS RECEIVED

INTERNS HANDBOOK. By members of the faculty of the College of Medicine, Syracuse University, under the direction of M. S. Dooley, A.B., M.D., chairman, publication committee. Second edition, revised and reset. 523 pages, 10 illustrations. Cloth. Price \$3.00. J. B. Lippincott Co., Philadelphia.

\* \* \*

OUR COMMON AILMENT, CONSTIPATION: ITS CAUSE AND CURE. By Harold Aaron, M.D., Medical Consultant to Consumers Union of United States. 192 pages. Price \$1.50. Cloth. Dodge Publishing Co., New York.

\* \* \*

HUMAN PATHOLOGY. By Howard T. Karsner, M.D., Professor of Pathology, Western Reserve University Medical School. Fifth edition, entirely revised, with 1013 pages, and 433 illustrations. J. B. Lippincott Co., Philadelphia, Pa., 1938. Cloth. Price \$10.00.

\* \* \*

SPINAL ANESTHESIA. By Louis H. Maxson, A.B., M.D., Practicing Specialist in Anesthetics; Former Chief Anesthetist, Harborview (King County) Hospital, Seattle, Wash. 409 pages, 69 illustrations. J. B. Lippincott Co., Philadelphia, Pa., 1938. Cloth. Price \$6.50.

\* \* \*

THE NEW INTERNATIONAL CLINICS. Edited by George M. Piersol, M.D., Professor of Medicine, Graduate School of Medicine, University of Pennsylvania, Philadelphia, Pa. Vol. IV, new series one (old 48th), 1938. 349 pages, illustrated. J. B. Lippincott Co., Philadelphia, Pa., 1938. Cloth.

\* \* \*

THE VITAMINS AND THEIR CLINICAL APPLICATIONS. By Prof. Dr. W. Stepp, Director, of the I. medical clinic, University of Munich, et al. Translated by Herman A. H. Bouman, M.D., Minneapolis, Minn. 173 pages. The Vitamin Products Co., Milwaukee, Wisc., 1938.

(Continued on page xxii)

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## BOOK REVIEWS

**DISEASES OF THE SKIN.** By George C. Andrews, A.B., M.D., Associate Professor of Dermatology, College of Physicians and Surgeons, Columbia University. Second edition, entirely reset. 899 pages, with 938 illustrations. W. B. Saunders Co., Philadelphia, Pa., 1938. Cloth. Price \$10.00.

This is a very practical treatise on skin diseases. It is written in a simple, understanding style and is amply illustrated. The author is at his best in the chapters on x-ray and radium in relation to skin diseases. Here a complex subject is reduced to simple terms. He has also given due recognition to the importance of industrial dermatoses. This includes a resume of the possible exciting factors and industries involved. The chapter on drug eruptions is particularly informative. The subject of skin cancers is given due importance. There is a lengthy chapter on syphilis and the subject is well handled from the standpoint of diagnosis and modern methods of treatment. There are brief chapters on diseases of the hair and nails. The outstanding feature of the text is the number of illustrations—at least one for every page. The book will serve well as a reference textbook for students and practitioners.

\* \* \*

**MODERN SOCIETY AND MENTAL DISEASE.** Carney Landis, Ph.D., associate professor of psychology, Columbia University; and James D. Page, Ph.D., instructor in psychology, University of Rochester. 190 pages. Cloth. \$1.50. Farrar and Rinehart, Inc., New York, 1938.

In this little book an attempt was made to summarize and analyze available data pertaining to the relation existing between mental disease and such factors as age, urbanization, race, and social levels. The facts relevant to the possible inheritance of mental disease

were examined, and the effects of various environmental stresses such as war and economic depression upon the incidence of hospitalization were investigated.

As to the significance of age in mental disease, the analysis brought to light that the incidence of mental illness is higher in the older age groups. The relationship between age and mental disease is strikingly uniform, and for the principal psychoses the average age of onset is quite consistent from one country to another.

The incidence of hospitalized mental cases is much higher for urban than for rural communities. If it were possible to control the factors favoring greater hospitalization of the urban patients most, if not all, of the urban-rural differences would probably be eliminated.

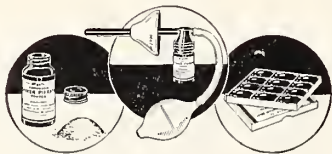
Of practical importance is the chapter on heredity and sterilization. The problem of heredity in mental disease is concerned with dementia praecox and manic-depressive psychosis, which combined constitute about one-third the annual number of new admissions. The literature as to the role of heredity as an etiological factor in dementia praecox is contradictory, but the findings have been consistent on two points: The relatives of dementia praecox patients succumb more frequently to dementia praecox than do other members of the general population, and the probability of developing dementia praecox is greater in those families in which more than one member is a dementia praecox patient than in those families in which only one member is affected. The research of Luxenburger indicates that 0.85 per cent of the general population may be expected to develop dementia praecox, and 0.44 per cent have the probability of developing manic-depressive psychosis. With respect to the efficacy of eugenic sterilization, the authors quote Schulz who has shown that if all dementia praecox patients were sterilized the incidence rate in the succeeding generation would be reduced only by 2.2 per cent. Extensive sterilization of

(Continued on page xxiv)

## A AN EFFECTIVE TREATMENT FOR TRICHOMONAS VAGINITIS

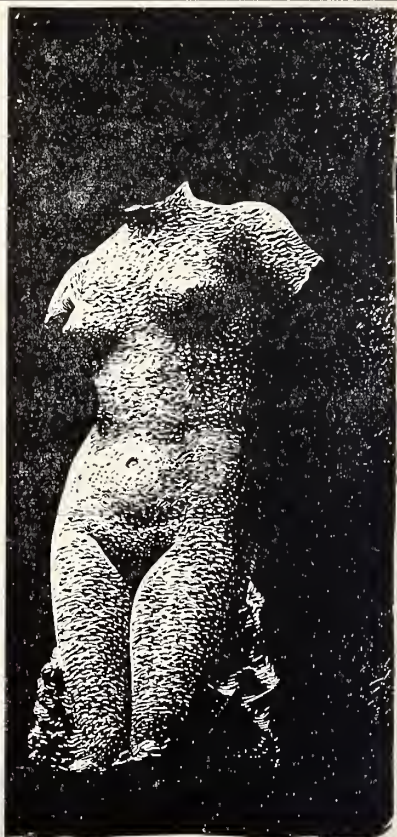
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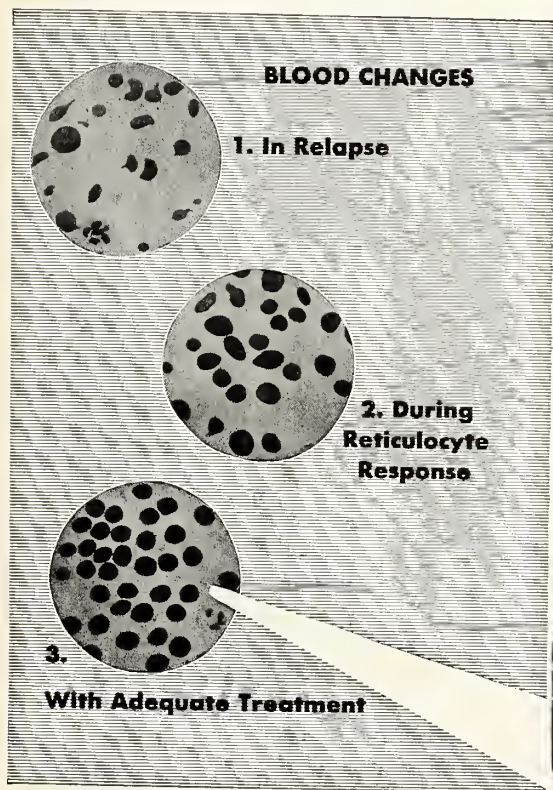


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10	26- 52	3.3	5.16
4	53-104	3.9	5.26
15	105-156	3.2	5.18
2	157-208	3.9	5.21

Reprinted from "The Use of Concentrated Liver Extracts in Pernicious Anemia" by William P. Murphy, M.D. and Isabel Howard, Jo. A.M.A., January 14, 1939, Vol. 112, pp. 106-110.

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### BOOK REVIEW—Cont'd from page xxii

dementia praecox and of manic-depressive patients, therefore, would have little effect in reducing the incidence of these two mental disorders. In only a few special instances, where there is a high probability of children, would sterilization be advisable.

The foreign-born have the same mental disease rates as the natives and natives of foreign parentage.

As to mental disease in Europe, the authors submit interesting figures disclosing that the number of registered mental patients in England is about seven times as high as in Poland. In evaluating the difference it must be noted that in England there is one mental hospital bed available per 250 adults in the general population, while in Poland the rate of hospital beds is 1 to 1,700 general population. In contrast with the marked national differences presented by the hospital statistics, a comparison of the incidence of mental disease among the conscripted soldiers in various European countries reveals a striking agreement between countries. In seven of the European nations about 1 per cent of the conscripted men were rejected annually because of nervous and mental disease, usually dementia praecox, epilepsy, or mental deficiency. In the United States, compulsory conscription during the World War showed that 1.51 per cent of the drafted men were mentally alienated. In all Europe the same mental diseases are present as in the United States. There is one respect in which mental disorders differ among European nations and that is in the content of delusions and hallucinations. The influence of culture upon the overt expression of mental symptoms is best illustrated in Russia. In Czarist Russia religion was a powerful factor in the lives of the people. Today the voice that torments the dementia praecox patient is no longer the voice of God accusing him of sin, but the voice of other workers who accuse the patient of not doing his share in the Five Year Plan. Patients with delusions of grandeur no longer imagine themselves as kings or grand dukes, but as great engineers and inventors. But the basic reactions of delusions, hallucinations and persecution are constant in all countries. The Kraepelinian classification is as applicable to the insane of Italy as to those of Norway, Latvia, or England.

The chapter on the outcome of mental disease is most interesting. The discharge rate is practically the same from one section of the United States to another. In 8 out of 9 regional sections in the United States, from 35 to 41 per hundred patients admitted were discharged as recovered or improved. The amelioration rate from one year to another remains quite constant. In 1923, 41 per 100 patients admitted to mental hospitals in the United States were discharged as recovered or im-

proved. In 1933 the improvement rate was 39 per 100 admitted. For New York State mental hospitals during the five-year period from 1920 to 1925, 41 per 100 admitted were discharged as ameliorated, while ten years later the rate was only 38. These figures are disillusioning. They reveal that the various psychotherapeutic methods, including the so-called "psychobiologic approach", which have been introduced into psychiatry during the last 25 years, have been greatly overrated and have not contributed to a greater amelioration rate of hospitalized mental patients.

The death rate of mental patients in New York State mental hospitals was 3 to 6 times as great as that for the general population.

The question—"Do neurotics become psychotics?" is answered by stating that there is no ground for believing that psychoses and neuroses are different degrees of the same thing. In the attempt to give evidence to this point they quote Ross who followed up his neurotic patients to find out how many were later certified as psychotic. Of 1,186 neurotic patients but 50 subsequently developed a psychosis.

Are mental diseases increasing? When the increase in mental disease is related to the increase in general population, the so-called increase in mental disease is almost nonexistent. The army data essentially indicate that the incidence of dementia praecox is not increasing in young male adults. Several points in this connection are outstanding. The extremely rapid increase in the incidence of hospitalized cerebral arteriosclerosis patients and the slow and constant decrease of general paresis, the latter dating from 1918.

Did the World War or the depression increase mental disease? The war did not serve to increase or decrease the prevalence of any particular psychosis. This statement is based on the number of first-admissions to New York State hospitals per 100,000 adult population. During the war period the incidence was 92, while during the four years preceding and following the World War, the incidence rate was also 92. On the basis of first-admissions to state mental hospitals in New York, Massachusetts, and Illinois, there is no evidence that the depression had any effect on mental disease.

The authors conclude the book with the following paragraph: Our data all favor the argument that the basic etiological factors of mental disease are physiological and constitutional rather than psychological.

A large amount of the most reliable statistics have gone into the making of this book and it contains much valuable information. The facts are antidote to over-enthusiasm of the value of dynamic psychology and of other vague philosophies which have held the attention of teachers of present-day psychiatry.



## ABSTRACTS

## NATIONAL CANCER INSTITUTE ACTIVITIES

Patients with advanced cancer who have been treated at the University of California with rays from the cyclotron, a new atom-smashing machine, are furnishing much encouragement for scientists in this field, according to officials of the National Cancer Institute of the United States Public Health Service.

"Tests have not gone far enough to establish permanent cures," Dr. Ludvig Hektoen, executive director of the National Advisory Health Council, pointed out, "but the cancerous growths of these patients are receding, and this bit of encouraging evidence of the value of the radio active particles produced by the cyclotron is leading to further studies and experimentation."

The National Advisory Cancer Council at a recent meeting recommended to the Surgeon General of the Public Health Service that \$23,000 be given to the University of California to help finance special cancer treatment work to be undertaken in connection with a new medical cyclotron. It is expected that the new instrument will be installed at Berkeley, California, next month.

This grant makes a total of 19 grants aggregating \$159,000 which have been recommended by the Council since the National Cancer Institute was created by a Congressional Act of 1937.

Other current activities of the Institute include:

(1) Twenty-two young physicians receiving special training in diagnosis and treatment at approved cancer clinic centers.

(2) A cancer unit being developed at the United States Marine Hospital in Baltimore to provide addi-

tional facilities for an estimated 4,000 cases in the next 25 years.

(3) The granting of 15 research fellowships for work on projects undertaken by the National Cancer Institute and private research centers.

(4) Five field investigations now under way on the incidence of cancer, mortality, epidemiology of the disease with special reference to the deadly lung cancer, effectiveness of various methods of therapy, and the cost of adequate therapy, and

(4) Purchase of nine and one-half grams of radium, delivered to Bureau of Standards for rigid tests before the supply is distributed to hospitals and clinics throughout the country. Only one gram will be retained for the Institute's own work.

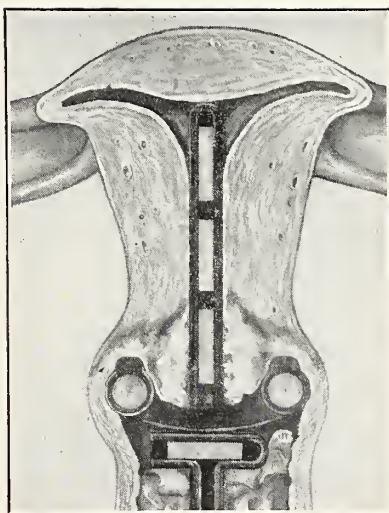
During April staff members of the Institute cooperated in the nationwide observance of Cancer Control Month.

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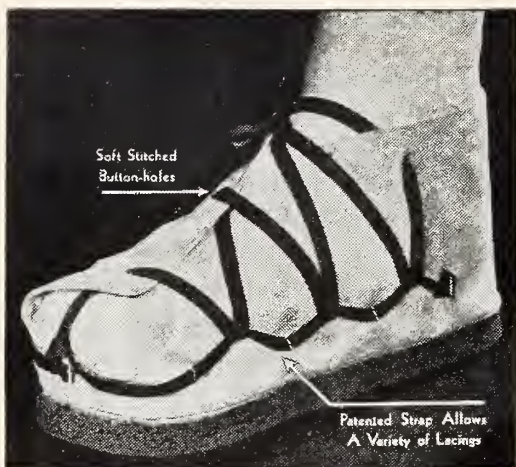
Pointing out that more than 35,000,000 people take part in undirected vacational migrations in the United States annually, Dr. Charles I. Singer, Long Beach, N. Y., in *The Journal of the American Medical Association* for March 11, says that the American public does not know that for the healthy individual medical vaca-

*Continued on next page*

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*Continued from page xxv*

tional guidance is advisable and that for the sick it is imperative.

Dr. Singer says that this vast number of people are confronted with a climatic change, stimulating or sedative, which if properly selected can be utilized in preventing and influencing disease.

He states that a comparison of Europe and America shows that the health promoting natural resources of the former are far more effectively developed than those of this country and outlines a comprehensive plan for the development of American climatic treatment which, he says, will not only benefit the American public but also aid in the advancement of medical science.

"The medically supervised health resort is the logical place to care for the vacation migrant properly," Dr. Singer contends. In Europe this fact is recognized and spas and sanatoriums are given an important place in climatic treatment. However, he declares, "the present situation of the American health resorts is somewhat discouraging. There are only a dozen of the first order. They necessitate travel of several hundred miles from some parts of the country. Less than 1 per cent of the migrators select them as vacation grounds. Nearly all of them have shown a decline of patronage in the last few years. This decrease of patronage is due partly to economic causes but mostly to lack of physicians' interest, because of lack of reliable information in the literature concerning spas, lack of medical supervision of spas and unfounded claims in spas booklets.

"In a resort lacking well organized medical supervision the general practitioner is too busy during the vacation season. He finds it difficult to answer the many questions about the beneficial effects of the resort asked by the bewildered vacationist. He should be able to answer them with scientific certainty, but the basic facts are not yet established. Undirected, the vacationist accepts whatever is offered. No wonder he falls prey to quacks, charlatans and cultists.

"To develop the modern American climatic treatment, the following steps seem to be important: an inventory of our natural resources, development of institutions, and education of a new type of specialist, the general practitioner and the public.

"America is fortunate to find within its boundaries an array of specific climatic types, all types of seashores from Nordic to subtropical, high altitudes and deserts. But the biologic effects of our different climatic types have to be evaluated. Our thermal mineral springs, muds and moors must be standardized; indications and limitations must be determined; unwarranted claims must be weeded out.

"The American Medical Association has a committee on spas and health resorts. This committee has a tremendous job. To be efficient, it should be supported by state committees and interstate special field committees.

"The development of American health resorts should be based on national characteristics, type of resources and standards of living."

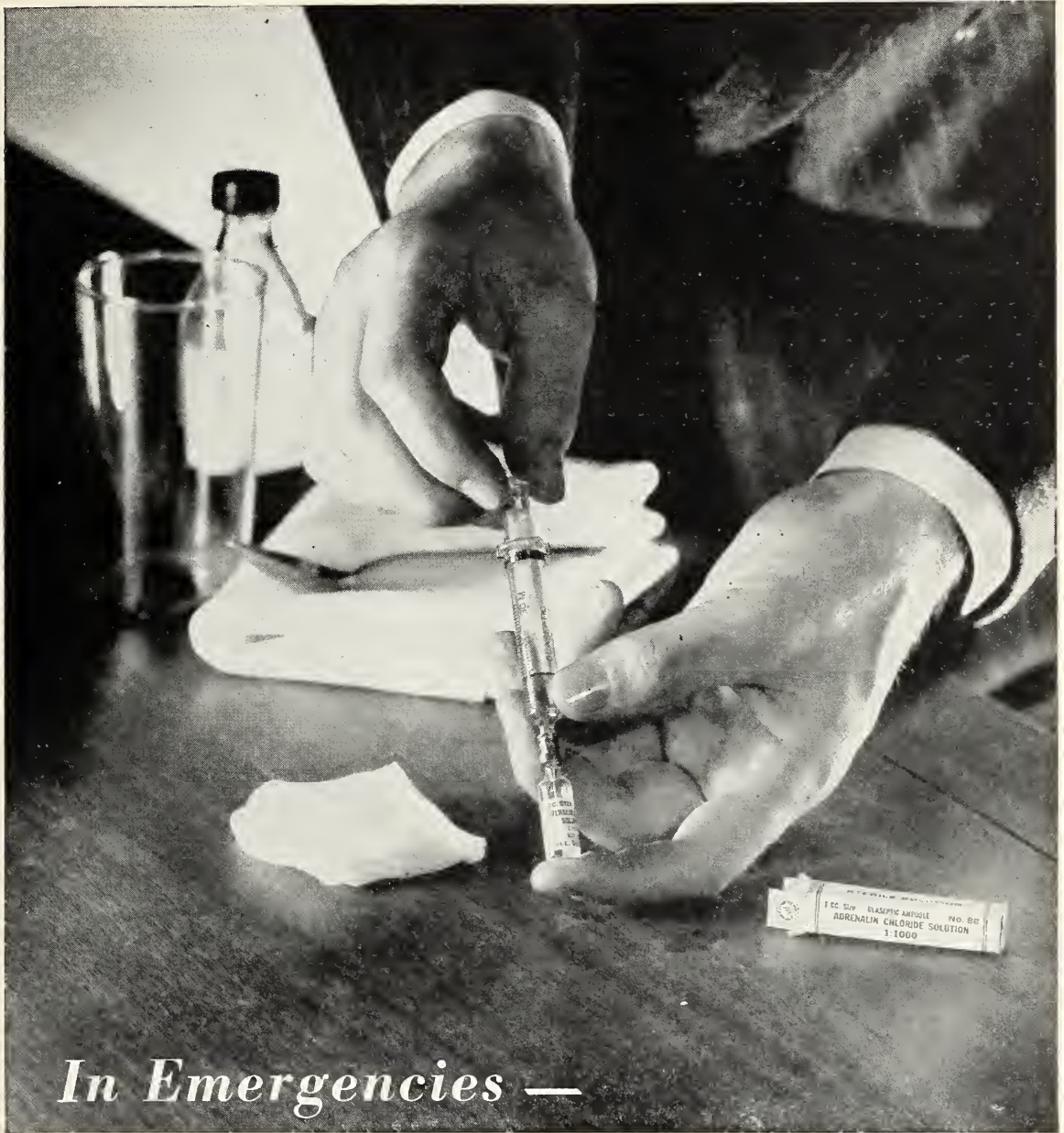
Some of the errors that vacationers frequently make are faulty selection of the place of vacation, continuation of faulty habits of living, failure to utilize climatic factors, overexposure to climate, spending too short a time on vacation and excessive activity during it.

The author points out that climatic change may be stimulating or sedative and that the type of climate selected for the vacation should depend on such factors as the age and constitution of the vacationer, the climate to which he is accustomed and the nature and stage of the chronic disorder to be influenced, if any.

"While the Northern climates are generally considered stimulating and the Southern climates as sedative," he says, "the element of relativity must be estimated. For example, the late fall climate of North Carolina will be stimulating to the Florida farmer and

*(Continued on page xxviii)*





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FOR SALE: All the drugs and instruments of the late Dr. J. H. Reed. May be inspected at office, 330 North Street, Logansport, Indiana, or write for inventory to Mr. Gerald G. Reed, at the same address.

(Continued from page xxvi)

sedative to the New York business man. The latter will find the fall climate of Maine stimulating, while the New England fisherman, accustomed to drenching waves and strong winds, will find it mild."

A sedative climate is advisable for the feeble aged, delicate children and persons with such diseases as rheumatic heart disease, chronic nephritis (inflammation of the kidney) and rheumatoid arthritis.

Mentioning some of the characteristics of present vacational migrations, Dr. Singer says the vacationers spend annually an estimated \$5,000,000,000. About 70 per cent of the migrations take place in the summer, about 20 per cent in the winter and about 10 per cent in the fall and spring.

There is a distinct predominance of vacationers from the northeastern and midwestern states. Typical vacation states are New England, New York, New Jersey, Florida, the Gulf states, California, the Great Lakes states and the desert states.

Seashores, lakeshores, altitudes and deserts, respectively, are the most popular vacation sites. Tourists staying less than ten days within a state constitute about 65 per cent of the migrants.

### NEW YORK WORLD'S FAIR HEALTH CALENDAR

An elaborate calendar of special events and days will be celebrated at the New York World's Fair 1939 during the six months' period this summer. Leading organizations have scheduled a large number of days for the observance of health and medicine in the "World of Tomorrow." These include:

- May 1—National Child Health Week (to May 8)
- 9—Dental Society of New York State Day
- 12—National Hospital Day
- Nurses Day
- 16—American Medical Association Day
- 17—Red Cross Day
- 19—Tenth International Congress of Military Medicine and Pharmacy Day
- 31—State Medical Association Day
- June 3—American Academy of Pediatrics Day
- 4—American Society for the Hard of Hearing Day
- 18—New York City Health Department Day
- 23—School Health Day
- 27—County Medical Association Day
- October 21—National Health Day

### FUNGUS INFECTION EFFECTIVELY TREATED BY SULFANILAMIDE

Sulfanilamide has proved effective in the treatment of a case of fungus infection characterized by lumpy tumors, Edwin M. Miller, M.D., and Egbert H. Fell, M.D., Chicago, report in *The Journal of the American Medical Association* for Feb. 25.

Actinomycosis, also called lumpy jaw, big jaw, dams, clyers or wooden tongue, is a chronic infectious disease of cattle, sometimes transmitted to man.

In the case reported by Drs. Miller and Fell the disease developed in the lower part of the abdomen of a boy 11 years old. Other drugs were used for three months without any benefit. Within a week after treat-

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ment with sulfanilamide was started, improvement in the abscessed mass and in the condition of the boy was apparent.

When the patient was last seen by the authors they say that "he was certainly the picture of robust health and showed no ill effects from the continuous taking of sulfanilamide for about ten months."

#### EDUCATING EXPECTANT MOTHERS LOWERS MATERNAL DEATH RATE

By educating pregnant women through the medium of predelivery classes, Cleveland has reduced its maternal mortality rate, Richard A. Bolt, M.D., Cleveland, reports in *The Journal of the American Medical Association* for April 22.

Reporting the experiences of the Cleveland Child Health Association, Dr. Bolt says they have led to the belief that the first consideration in any program for the reduction of maternal mortality must be the pregnant woman herself.

He believes that "the pregnant woman's ability to choose a skilful physician, a competent nurse and a well conditioned hospital is of vital importance. Her capacity to grasp and carry out simple hygienic rules and her teachability as to the importance of symptoms and signs which indicate approaching danger are large factors. Group instruction in antepartum (before-delivery) care, given by competent public health nurses under the direction of a physician, is proving a successful method of teaching these essentials to the expectant mother."

The mortality rate in 1933 for women attending the antepartum classes was 2.8 deaths per thousand births and 5.9 for the women not attending the classes. In 1937 the rate for the 2,524 women from the antepartum classes who were confined was only 0.78, as compared with a rate of 4.2 for those not attending the classes.

"Unless the prospective mother," Dr. Bolt concludes, "can be impressed with the importance of an early choice of a skilful and conscientious physician and it is made possible for her to choose a physician from among the most competent obstetricians in the community, and unless it is made possible for those in the lower economic levels to obtain adequate medical, nursing and hospital care, a material reduction in maternal mortality rates cannot be expected. There may be adequate hospital facilities, a large enough number of physicians and obstetricians in the community and all the necessary nursing facilities, yet, if these cannot be brought to bear directly on the prospective mother at every economic level other efforts will prove fruitless. The maternal mortality rate will be reduced only in proportion to the community organization which coordinates these forces.

"Accurate reporting of births and deaths is essential to any appraisal and comparison of mortality rates."

#### EFFECTS FROM INSULIN AND METRAZOL

Metabolism of the brain is diminished when insulin or metrazol is used as convulsion treatment for schizophrenia, Harold E. Himwich, M.D., and Joseph F. Fazeakas, Albany, N. Y., Karl M. Bowman, M.D., and Joseph Wortis, M.D., New York, state in *The Journal of the American Medical Association* for April 22.

Schizophrenia is a form of mental disorder characterized by cleavage of mental functions. Metabolism may be defined as the physical and chemical processes by which living organized substance is produced and maintained.

"To contrast the fundamental differences of the actions of metrazol and insulin," the authors say, "the latter decreases the amount of coal (dextrose) necessary for the fire to support cerebral functions, while metrazol interferes with the draft (oxygen) required to maintain the flame. The end results in supplying energy to the brain are the same in both methods."

#### ADVERTISERS IN THIS ISSUE

Adams, Arthur (medical books).....	viii
Buck, Maynard A., Warren, Ohio.....	xvi
Chicago Tumor Institute.....	xxiv
Commercial Announcements .....	xxviii
Cook County Graduate School, Chicago.....	xv
Corn Products .....	xiii
Detroit First Aid.....	xxvi
Ford Motor, Indianapolis .....	3rd cover
Hanger Company, Indianapolis.....	xvi
Home Lawn Sanitarium, Martinsville .....	xiv
Hord's Sanitarium, Anchorage, Ky.....	xviii
Hynson, Westcott & Dunning.....	xxvi
Indiana University School of Medicine.....	4th cover
Knox Gelatine Labs., Johnstown, N. Y.....	vii
Lederle Laboratories, New York.....	xxiii
Eli Lilly & Company, Indianapolis.....	xx
Louisville Neuropathic Sanit., Louisville.....	xvi
Luzier's, Inc., Kansas City, Mo.....	xl
Maples Sanitarium, St. Mary's Ohio.....	xvi
McMillen Saniterium, Columbus, Ohio.....	xviii
Mead Johnson & Co., Evansville.....	v
Medical Protective Co., Wheaton, Ill.....	xxi
Milwaukee Sanit., Wauwatosa, Wisc.....	4th cover
Neuronhurst—Fletcher's Sanit., Indianapolis.....	xvii
Parke-Davis Company, Detroit.....	xxvii
Petrolagar Company, Chicago .....	2nd cover
Physicians' Casualty Assoc., Omaha, Neb.....	xxi
Physicians' Directory .....	xxx
Pitman-Moore Co., Indianapolis.....	xix
Plymouth Sanitarium, Plymouth, Ind.....	xviii
Pogue School, Wheaton, Ill.....	xvi
Radium and Radon Corp., Chicago.....	xvii
Radium Emanation Corp., New York.....	xxv
Rogers Memorial Sanit., Oconomowoc, Wisc.....	xix
Sharp & Dohme .....	iv
S.M.A. Corporation, Chicago, Ill.....	ix
Smith, Kline & French, Philadelphia.....	xi
South Bend Medical Laboratory.....	xvii
E. R. Squibb & Sons.....	xii
Sterne Memorial Hospital, Indianapolis.....	xvii
Stokes Hospital, Louisville, Ky.....	xv
Upjohn Company, Kalamazoo, Mich.....	iii
Waukesha Springs Sanitarium, Waukesha, Wisc.....	xvi
White-Haines Optical Co., Indianapolis.....	xv
Wyeth, John, & Bro., Philadelphia.....	xxii
Zemmer Co., Pittsburgh.....	xxviii

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### A COMPARISON OF TYPHOID FEVER TWENTY-FIVE YEARS AGO AND NOW—ITS INCIDENCE AND TREATMENT

T. Z. BALL, M.D.

Crawfordsville

An article covering the subject of typhoid fever, especially relating to its treatment and incidence of twenty-five years ago and today, necessitates the employment of volumes of material gleaned from reports that can be obtained only from the printed page. I am indebted to the *American Journal of Public Health*, *The Journal of the Military Surgeon*, and other standard authorities for the major part of my information as to the history of the present day prophylaxis in the United States Army, which is the accepted procedure of the medical profession in the United States. No specific treatment has as yet been found for the disease.

My first introduction to the disease was in 1895, when I began practice in Indiana in a so-called rural district where horses and buggies and outside toilets prevailed. The season for typhoid fever at that time was as definitely stamped in the minds of the laity as the signs of the Zodiac; it began about the first of August and lasted until December or January. The drinking water commonly obtained from shallow wells, the absence of screens for doors and windows, the abundance of flies, and the lack of general sanitary measures tended to open the way for the introduction of many insect-borne diseases, of which the leading offender was typhoid, with dysentery a close second, and malaria probably third in importance. From the fact that the farms had been well drained for some years in this particular locality, the *Anopheles* mosquito had moved down on the Wabash River. At this period it was not generally known, however, that the mosquito was the vector in malaria; it was supposed to be due to "miasma," and many cases of so-called typhoid-malaria were diagnosed which often proved to be typhoid in its incipiency. The tendency to diarrhea and intestinal hemorrhage often clinched the diagnosis a few days after the onset. If typhoid was sus-

pected, the patient was put on a strict liquid diet. Such drugs as sulphocarbolate of zinc, mild chloride of mercury, drop doses of carbolic acid, or tincture of iodine, or minute doses of bichloride were used as intestinal antiseptics, with perhaps some form of bismuth or opiates to control the diarrhea or hemorrhage. Six, eight, or ten weeks of continuous treatment was given, consisting of frequent tepid or cold baths until the patient recovered or was an unfortunate victim of the disease.

In the year 1900, I was on the staff of a large army hospital in the Philippine Islands, and was assigned to a typhoid ward where the Brand method of cold baths had been instituted and followed implicitly. It was customary and obligatory to give every patient a cold tub when the temperature reached 104 degrees, regardless of any other symptoms. One morning, on making my rounds, I discovered that a patient receiving his stipulated tub was in shock, and immediately ordered him removed to his cot and placed between blankets. The attendants took exception to this order and reported it to my superior who ordered the patient put back into the cold tub. The patient died pronto, and in a few days I received orders assigning me to a troop of cavalry for field duty for which I was very thankful. This station was a veritable hot-bed of typhoid, due to unsanitary conditions prevailing throughout the town, the open latrine still in use at this hospital, and free access of flies to the excreta.

The introduction of deep wells with iron casings and the exclusion of surface water from them, the screening against flies, and more care in general sanitation was very materially reducing the morbidity in typhoid when, in 1886, two early investigators, Fränkel and Simmonds, experimenting with non-lethal doses of typhoid bacilli on rabbits, found that this procedure protected them against

subsequent otherwise fatal doses. In this same year mice were immunized by using potato cultures of typhoid bacilli, and it was suggested that sterile or killed bacilli be used for the immunization of man. In 1892, Breiger, Kitasato, and Wassermann demonstrated that it was unnecessary to use living bacilli since killed cultures were equally effective. Both filtrates which had been used up to this time were effective only in so far as they contained particles of bacterial cells.

The first actual immunization of man for protection against typhoid fever was made by Pfeiffer and Kolle in 1896. They immunized two men and investigated the specific changes in the blood serum exhaustively, and proved that the bacteriolytic power of the blood was raised in the same way as during an attack of typhoid, it being a well established fact that one attack of typhoid afforded immunity for life, or at least a long period of time. Interest became focused upon the possibility of immunization rather than upon the treatment.

Sir A. E. Wright, connected with the Medical Corps of the British Army, having injected killed typhoid bacilli in the course of investigations on the coagulability of the blood, in the year of 1897 published the results of anti-typhoid inoculations on eighteen men demonstrating the practicability of anti-typhoid inoculations, and in 1898 the method was introduced in the British Army in India. Wright used broth cultures which had been incubated for three weeks, and then killed by heating to sixty degrees Centigrade for one hour. The size of dose used was a quantity required to kill a small guinea pig. Wright recommended the use of typhoid serum in the British Army.

Certain British troops were inoculated in the Boer War, but statistics were not complete or very satisfactory as to the results. There seemed to be a difference of opinion as to its efficiency in reducing the morbidity and mortality. The procedure did not become popular, but Wright himself, however, was convinced of its efficacy. Following this experiment of Wright's, the next extensive use of typhoid vaccine was in the German Colonial Army in South Africa from 1904 to 1907. Following the advice of Dr. Koch, prophylactic vaccination was employed, and while there were 226 cases of typhoid fever reported among troops in 1904, only 43 were reported in 1907.

From an article published in the *American Journal of Public Health* by Major General Robert U. Patterson, I find the statement that in 1908, Captain F. F. Russell, Medical Corps, U. S. Army, was sent to Europe to make a study of methods of inoculation for typhoid fever in use in England and Germany. Upon his return, a board of officers was organized to investigate the advisability of immunizing our own army. In addition to the Surgeon General and Russell, a number of prominent medical men, members of the Reserve Corps, were made members of the board. Much honor is due these men, who, convinced of the harmlessness

and efficiency of vaccination, recommended its adoption as a voluntary measure.

The first volunteers to take typhoid prophylaxis were medical officers stationed in and around Washington in the spring of 1909. The first organization of the army to submit to typhoid prophylaxis was Company C of the Hospital Corps in the spring of 1909. Compulsory vaccination for the whole army under forty-five years of age was put into effect by General Order No. 134, War Dept., September 30, 1911.

During the World War, in a mean annual strength of 4,128,479 men in the army, there were only 1,529 cases of typhoid fever with 227 deaths. The number of cases of typhoid fever reported during the period of the Spanish-American war and the Philippine Insurrection before the introduction of typhoid serum prophylaxis was 623,607 cases in the Spanish-American War with 65,313 deaths, and 47,894 cases during the Philippine Insurrection with 6,358 deaths.

Previous to 1905 it might have been said of typhoid fever, on account of its wide dissemination, the persistent vitality of the infecting organism, the duration and severity of its attack and its large death rate, that it was the most formidable infectious disease with which we had to contend in military life. In garrisons, typhoid is easily controlled, but in large camps or the field during active service it becomes a difficult problem, because of the task of disposing of the excretions of the human body. It is a matter of record that during the Civil War the rate of admissions was 62 per 1,000 strength. During mobilization of troops, due to the fact that typhoid is endemic throughout the United States, every new assignment of recruits may contain one or more cases of typhoid, either in the incubation or convalescent period, which readily becomes a source of infection to the camp.

According to the Reed Board of Investigation of the typhoid fever epidemic of the military camps of the United States in 1898, it was reported that half the cases which occurred were not reported as such, due to the fact that many atypical cases were reported as diarrhea or malarial fever. The rate of admissions, reported as 88.55 per one thousand strength, should have been more correctly reported as 192.65 per one thousand strength.

The specific organism causing typhoid fever is the *Bacillus typhosus*, a short, flagellated, sporeless bacterium closely resembling the widespread *Bacillus coli communis* and often difficult to distinguish from it. It flourishes best at the temperature of the body and ceases to grow below 48 degrees or above 108 degrees Fahrenheit. It is quickly killed in boiling water, or when exposed for fifteen minutes to a temperature of 140 degrees Fahrenheit. The most intense cold yet produced does not destroy it, and it may remain frozen in ice for months and still retain its virulence. It retains its vitality for a time in dry material but complete



desiccation soon kills it. It may live a long time in earth contaminated with organic material, but soon dies in clean soil that is well exposed to the sun. Advantage was taken of this fact by the War Department during the Philippine Insurrection, and an army order was issued by General Sternberg that all fecal matter should be treated with fresh earth. It is said to live two or three months in distilled water, but in ordinary water probably not longer than two weeks. In clothing and tentage, this organism may survive several weeks and be carried long distances, thus producing fresh outbreaks in unexpected places. The average incubation period is eight to twelve days, but the interval between exposure and a given outbreak of the fever may be much longer since one may carry the bacilli under his nails, or in the hair or clothing for days or weeks before they find their way into the intestinal tract.

The typhoid bacillus is passed in vast numbers by the patients from the period of incubation to long after convalescence has set in. It is also passed in the urine in about one-fourth of all cases, often in enormous numbers; a drop of urine may contain millions of germs. Infected urine is thought by investigators to be the most dangerous excretion of the typhoid patient. Other secretions such as sweat, saliva, and milk may also contain the organism. Patients may continue to excrete the bacilli in their feces long after the abatement of all febrile symptoms, and thus be a source of infection for weeks after apparent termination of the disease. These cases are classified as common typhoid carriers, some of them becoming a public menace throughout their lives. Carriers, however,

may discharge germs more or less intermittently, the excreta at times being free; and one examining for suspected carriers must make at least two examinations a few days apart before declaring the suspect free from infection.

Experimental studies now being made at the Army Medical School with the view of ascertaining the duration of protection afforded by vaccination and the relative value of the method of revaccination followed, of giving three subcutaneous injections of typhoid vaccine consisting of 0.5 cc., 1 cc., and 1 cc. at intervals of one week, and a method consisting of a single 0.1 cc. dose given intracutaneously, seem to prove after two years experimentation that the intracutaneous 0.1 cc. method has advantage over the larger three dose procedure, in that it immunizes perfectly without producing any untoward manifestations, and is also a simple and time-saving method of reestablishing immunity.

The length of time for which the typhoid vaccination affords immunity is now conceded to be two to ten years; the antibodies decrease quite rapidly for the first two years, but have been found still to exist in the blood of vaccinated persons up to ten years. The results obtained by experimentation suggest that persons who have been immunized with typhoid vaccine should be revaccinated in from two to four years.

The present treatment of typhoid fever like many other diseases has now become a matter of prevention rather than cure. Considering the effectiveness of past treatment of typhoid fever and carriers, I would conclude that this field is still open for investigation.

## AMEBIASIS AND AMEBIC DYSENTERY

ROLLIN H. MOSER, M.D.

Indianapolis

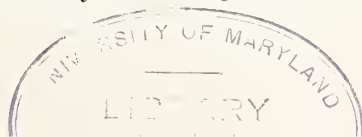
The term *Amebiasis* means the invasion of human tissue by *Endameba histolytica*. By the term *amebic dysentery* is meant a syndrome characterized by a bloody mucoid diarrhea caused by *E. histolytica*. Hence, amebic dysentery is a part of the clinical picture of amebiasis.

The first description of the organism and the lesions caused by it was made by Losch in 1875 in Russia. While the disease was considered for years to be limited to the tropics, it is now known to be world wide in distribution. In the United States, cases have been reported from every state. The majority of the patients infected with *E. histolytica* in this country do not develop dysentery. It has been estimated that between 5% and 10% of the population harbor this organism.

*E. histolytica* presents three cycles in its life history: (1) A motile trophozoite showing active motion by means of pseudopods and found only in

liquid stools; (2) Precystic form, and (3) Cysts. In the motile form, division is by simple fission into two amebae, no reproduction occurring in the precystic stage, and in the cysts the nucleus divides into four nuclei. These cysts pass with the feces, and if they reach the intestinal tract of man, they excyst, liberating a four-nucleated ameba which divides into eight small amebae.

For transmission of the disease, there must be direct contact between the feces of the carrier and the intestinal tract of the host. This occurs by means of a polluted water supply, use of human excreta in fertilization of garden vegetables, the handling of food and drink by carriers, and the droppings of flies. Since the motile form is quickly destroyed by the gastric juice there is little danger of transmission from the patient with dysentery. It is the individual with mild symptoms, having formed stools, or with no symptoms, who



is the potential source of infection to others. The food handler probably represents the greatest source of danger.

Children below the age of five years are much less often infected; the greatest incidence is between twenty and thirty years of age. Males are more often infected than females. The disease seems more severe in warm climates. Poor sanitary surroundings offer greater chances of infection.

Several epidemics of amebic dysentery have occurred, although sporadic cases are the rule. A rather severe epidemic appeared among the soldiers in the Spanish-American War, and again at the Mexican border in 1916 a fly-borne epidemic was reported. The epidemic during the recent World's Fair in Chicago was one of the most severe. There were 1,050 cases of amebic dysentery reported, with 70 deaths. The source of the infection was traced to a polluted water supply and infected food handlers in one of the large hotels. The fact that most of the patients were visitors from various distances makes it obvious that many carriers were spread over the entire country.

The lesions produced in the intestines by *E. histolytica* vary greatly from superficial erosions to extensive ulceration of large areas of the bowel with abscess formation in the liver and other organs. It has been shown that even extensive ulcerations may produce relatively few clinical symptoms. It is necessary for the organism at least to penetrate the superficial layer of the mucosa in order to live. The locations of the lesion in order of their frequency are about as follows: cecum, ascending colon, rectum, sigmoid, and terminal ileum. By means of a cytolytic substance producing a very small area of necrosis, the organism penetrates the superficial mucosal layer and produces a nodular elevation projecting from the top of the folds. These elevations are flask-shaped and contain a mucoid material containing many trophozoites of *E. histolytica*. These nodules break down to form ulcers with ragged overhanging edges. The organisms tend to burrow beneath the mucosa, often undermining large areas and forming sinuses. Occasionally a superficial ulceration may extend downward and laterally, producing round oval ulcers with thickened edges but not undermined. Secondary infection plays an important role in the pathology, producing extensive damage. Where secondary infection is minimal, isolated ulcers may be seen with little or no inflammatory reaction about them. There are three characteristic lesions: (1) nodular, flask-shaped areas found on the crest of the folds, (2) ragged undermined ulcers, and (3) sinuses beneath the mucosa. Abscess of the liver may be a large and single area or multiple small areas of necrosis. They may occur anywhere in the liver but are more commonly found in the right lobe. The abscess contains reddish brown, tomato juice material. If secondary infection is present, thick yellow, purulent material may be present. Abscesses may

occur in the lungs, brain, kidney, spleen, skin, lymph glands, testis and bladder.

#### SYMPTOMATOLOGY

The symptomatology of amebiasis is extremely varied. In mild cases few if any symptoms may be present. In most individuals harboring the organism there is constant healing and invasion proceeding at the same time and a state of balance may ensue for indefinite periods. When resistance is lowered, the balance is destroyed and ulceration gains and symptoms may result. In simple amebiasis the symptoms are vague: bloating, sense of fullness, constipation, sometimes mild diarrhea, cramp-like pains chiefly in the right lower quadrant, nausea and vomiting. Sometimes toxic manifestations such as backache, headache, general malaise, etc., are present. The acute attack of amebic dysentery presents definite symptoms. The incubation period varies from a few days to months or even longer because the organism may be held in abeyance for long periods before dysentery develops. Usually there are minor attacks of cramps and diarrhea before the sudden onset of severe pain, tenesmus, liquid stools containing blood and mucus, fever, weakness, malaise and depression. Occasionally a case may terminate fatally in a few days or a chronic dysentery may persist for years. There is usually tenderness, especially in the right lower quadrant, a sallow color or even jaundice if hepatitis is present. A moderate leukocytosis usually occurs. Following the Chicago infection, many cases of amebiasis and dysentery were subjected to operation for appendicitis. Tumefactive masses about the cecum have been mistaken for carcinoma. A single large hemorrhage from the bowel may be the only symptom of amebiasis. Amebic abscess of the liver occurs in about 2 to 4% of the cases of amebic dysentery and presents itself in from one to three months after the onset of the dysentery. During the initial invasion of the liver by *E. histolytica*, there is some swelling and tenderness associated with fever and a rather marked leukocytosis. This may continue for several weeks before actual abscess formation is present. Pain in amebic abscess is usually dull and boring in character and often transmitted to the midtrapezius region of the right shoulder. The temperature chart presents the typical septic swings accompanied by chills and sweats. The physical signs are enlargement and tenderness of the liver with some rigidity of the overlying muscles. There may be localized edema in the skin over the liver area. At times increased lateral motion of the lower right chest can be demonstrated on inspiration. Fluoroscopy of the chest may show an elevated right diaphragm. Diagnostic puncture is usually not advisable.

#### DIAGNOSIS

The absolute diagnosis of amebiasis depends upon the finding of one of the forms of *E. histolytica*. It is well to understand that the search for the organism should be undertaken only by



individuals well trained in this field. While it is true that often it is a simple matter to demonstrate the motile forms, it usually requires the experience and skill of the expert to identify the cysts. If a motile amebic form is seen with pseudopodia which are hyaline and finger shaped, and in which red cells are seen, one is justified in making a diagnosis of amebiasis; or if cysts are seen containing large chromatoidal masses, the diagnosis is justified. Motile forms are seen only in fluid stools and cysts in formed stools. The ideal way to procure material for study is to obtain scrapings directly from the ulcerated area through the proctoscope when lesions are found in the rectum. The material is placed in warm salt solution in a warm water bath until examined. If there is no involvement of the rectum, warm stools may be obtained and must be examined at once. Stools passed after the administration of salines and kept warm in a double boiler are satisfactory for study. Cultivation methods may be used and are of value. The complement fixation test is highly specific, giving positive results in about 90%. It is practically impossible to differentiate amebic ulcerations of the rectum from other forms by protoscopic examination. If there is little secondary infection, the amebic ulcer is discrete with little inflammatory reaction about it and relatively normal mucosa between ulcers. Because of the difficulty frequently encountered in demonstrating the organism, it is always advisable in cases of ulcerative colitis, when *E. histolytica* has not been found, to give the patient a therapeutic trial of anti-amebic treatment.

The treatment of amebiasis with mild symptoms or carriers with no symptoms consists in the administration of carbasone which contains 28% of arsenic and is dispensed in capsules of 0.25 gm. each. One capsule, twice daily, is given for a

period of ten days. After one week's rest, this is repeated, after which the stools are carefully checked. Diodoquin, a preparation containing about 67% iodine, has proven very efficient and is not as toxic as carbasone. It is dispensed in tablets of 3.5 gr. each; 2 or 3 tablets three times daily is the dose and it is given for a period of ten days. This may be repeated several times at intervals of two weeks until the stools are negative. Vicform is another iodine drug containing 37% iodine. The above forms of therapy are advisable in the mild forms as diarrhea cases as well as carriers. In the acute dysentery, emetine gr. 1 given subcutaneously once daily for seven days is specific for the motile form and usually rapid improvement ensues. After one week of emetine a course of carbasone is advised. Emetine should be used only for controlling the diarrhea and is not curative in itself. It is a potent drug and should always be used with caution. Some of the toxic symptoms are neuritis, muscular weakness and degeneration of the heart muscle. The results of any form of therapy should be checked by frequent stool examination and at least one specimen examined at monthly intervals for three months. Emetine should be used in the treatment of amebic abscess of the liver and rarely should surgical drainage be necessary.

The prevention of infection depends upon the prevention of the contamination of food and drink with cysts of the organism, properly filtered water supply, proper disposal of sewage, protection of food from flies, and cockroaches, and most important the frequent examination of the stools of all food handlers. Travelers should eat and drink only at well known modern hotels and eating places and when forced to eat elsewhere should avoid raw food or foods requiring direct handling and drink bottled beverages.

#### ABSTRACTS

##### BUBONIC TULAREMIA OF GROIN TRACED TO TICK BITE IN TWO CASES

Reporting two cases in which bubonic tularemia of the groin was transmitted by tick bite, Joseph G. Paster-nack, M.D., New Orleans, in *The Journal of the American Medical Association* for May 6, points out that when this source of transmission is overlooked the disease may readily be confused with other types of bubo (inflamed swelling).

While only six similar cases have previously been reported, he advises that "a bubo in the groin or swollen glands anywhere when associated with fever, an ulcer of the skin or scratches resulting from insect bites and coupled with a history of tick bite or fly bite should suggest tularemia."

Bubonic tularemia of the groin is clinically similar to other types of buboes of the groin. The pus-discharging tularemia buboes will rarely yield the organism responsible for tularemia, *Bacterium tularensis*, on culture or produce lesions in guinea pigs.

##### PICKING TICK OFF HUSBAND CAUSES DEATH FROM ROCKY MOUNTAIN SPOTTED FEVER

A fatal case of Rocky Mountain spotted fever, in which a woman was apparently infected by picking a tick off her husband, is reported in *The Journal of the American Medical Association* for May 6 by E. Herbert Bauersfeld, M.D., Washington, D. C. Her husband remained in good health. Dr. Bauersfeld says he does not know whether she mashed the tick in her fingers. "R. E. Dyer, M.D., has traced the source of infection in several cases to mashing ticks between the fingers after removing them from dogs," the author says.

DUES PAID? THE JULY  
JOURNAL WILL NOT BE  
MAILED TO DELINQUENTS.

CONTROL OF TYPHOID FEVER IN THE ARMY

LT. COL. DON G. HILLDRUP\*

Indianapolis

In this brief article certain definite results from the prophylactic treatment of government agencies against typhoid fever will be reviewed in an effort to demonstrate the fact that the elimination of this disease is not only possible but with the support of the medical profession its realization can be greatly accelerated. Sporadic outbreaks of preventable diseases throughout the land occur with surprising regularity in spite of modern education and sanitation. Smallpox, which we know is wholly preventable, occurs with surprising frequency in many communities; the attempts of health authorities to combat this disease is met with opposition from the ignorant and the cultists, and at times these obstructionists even get sympathetic consideration from our courts.

An example of the eradication of smallpox is found in the island of Puerto Rico. When American troops occupied this island in 1898, smallpox was endemic and extracted a heavy yearly toll; following compulsory vaccination, the disease disappeared from the island and no authentic case has been reported in over twenty-five years.<sup>1</sup>

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Graphs reproduced by courtesy of the United States Army Medical Museum.  
<sup>1</sup> Personal communication.

Typhoid was described by the ancients and proved itself a scourge for many centuries. Its mode of transmission made it prevalent in thickly populated areas and the epidemics of cities, military and other camps are familiar to all. It was not until 1837 that typhoid was demonstrated to be a clinical entity by Gerhard and Pennock of Philadelphia. In 1884 Gaffky isolated the causative organism. Pfeiffer and Kolle in 1896 demonstrated that immunity could be had from the subcutaneous injection of killed organisms but it was several years before Wright brought this procedure to clinical application.

Prior to the introduction of prophylactic inoculation, the incidence of typhoid fever in the Army was at a rate comparable with that in civilian communities. The typhoid rate in the Spanish-American War was 14,159 per 100,000 and the deaths due to this disease far outnumbered all other causes including battle casualties. With the adoption of compulsory inoculation in 1910, the morbidity from typhoid dropped to a negligible figure, and only on rare occasions is a case demonstrated. During the Mexican Border Service in 1916 and during the World War period of 1917, 1918 and 1919, the rate was slightly increased for obvious reasons.



Figure 1



Figure 2



Siler, Dunham and their co-workers<sup>2</sup> have shown in an interesting and intensive experimental study that in immunity conferred by inoculation there is a material decrease in protective antibodies in the blood during the first and second years subsequent to immunization with typhoid vaccine, but the decrease is comparatively slow thereafter so that the protective antibody content of the blood in the average individual for as long as ten years subsequent to immunization is sufficient to indicate that he still possesses considerable immunity to typhoid fever; they have further shown that if re-inoculation is practiced from 2 to 4 years subsequent to the initial treatment, an immunity is established in the average person which persists more or less throughout lifetime. Based on information so gathered, regulations in the Army at the present time provide for only two series of typhoid inoculations at three-year intervals.

No more striking example of disease control can be found than in the study of typhoid fever in the Armed Service (Fig. 1). Voluntary immunization against typhoid was offered to the Army in 1909 at which time the rate was approximately 325. In 1910 the rate had dropped to around 240, which was the lowest on record. In 1911 compulsory immunization was established and in 1912 the rate had dropped to around 40, and except for the period of the Mexican Border mobilization in 1916 and the World War period of 1917, 1918 and 1919, when the rate never rose above 50, typhoid in the Army has been so rare that the average medical officer does not see a case during his entire service.

<sup>2</sup> *Journal American Public Health Association*, February, 1937.

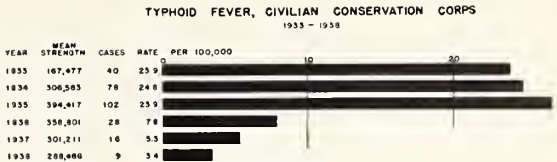


Figure 3

A study of typhoid in the United States Navy is as striking as that of the Army (Fig. 2). The disease was most prevalent during the Cuban occupation and Philippine insurrection in 1899 and 1900. Following the introduction of compulsory inoculation in 1912 the disease has been practically eliminated.

The control of typhoid in the Civilian Conservation Corps has not been as successful as in the Army and Navy (Fig. 3). This is due to several obvious factors. With the establishment of a more stabilized organization and better medical supervision, the rate has decreased accordingly and during the past year was 3.5 as compared with 8.33 for the State of Indiana. Most of the cases occurring in the CCC were in the southern camps where civilian incidence of typhoid is high.

As long as typhoid fever occurs there will be carriers; as long as there are carriers there will be typhoid—a vicious cycle. Despite the increasing vigilance and work of our health authorities, eradication of typhoid is impossible without universal inoculation; this can be obtained only by education of the public and cooperation of the legislators. Compulsory inoculation for one generation against typhoid, diphtheria and smallpox would relegate these diseases to the realm of historical medicine.

## MALARIA IN INDIANA

JAMES W. JACKSON, M.D.\*

Indianapolis

The first white settlement in what is now Indiana was at Vincennes. On August 20, 1808, the editor of the *Western Sun*, in a vigorous editorial, sought the cooperation of the citizens in the suppression of ague. He thought its source was due to putrefaction of grass growing in the river opposite the town and declared: "Those unwilling to remove it really deserve the curses of Heaven in every shape in which they can be inflicted."<sup>1</sup>

Fever may have been endemic in certain areas of Indiana even before it was settled by the pioneers. Marshall<sup>2</sup> says that the Indians asserted that in some areas they could not raise many children because of fever. Sporadic cases of what may have

been malaria occurred in different regions of the territory from the time of the earliest immigration. The wide-spread prevalence and extreme malignancy of malaria in Indiana in the early days now seems incredible. Up to 1819 the general health of the pioneers appears to have been good, but in that year malaria began to be epidemic.<sup>3</sup> During the following three or four years, the disease caused more fatal sickness than has been known before or since in the Middle West.<sup>4</sup> During this epidemic a pioneer county court, held in a wheelwright's shop, once had to adjourn long enough to permit Judge Wick to lie down on a workbench and shake off his chill.<sup>5</sup> Teacher and pupils used

\* Epidemiologist, Indiana State Board of Health.  
<sup>1</sup> Editorial, "Some Early History of Public Health in Indiana," *Monthly Bulletin of the Indiana State Board of Health*, 25, 147; 1922.  
<sup>2</sup> Marshall, George A. "Prevalence and Manifestations of Malaria." *Journal of the Indiana State Medical Association*, 7:402, 1914.

<sup>3</sup> Schweitzer, Ada E., "Malaria in Indiana," *Journal of the Indiana State Medical Association*, 4:70, 1911.  
<sup>4</sup> Harding, M. H., "Report of Committee on Practice of Medicine," *Transactions of Indiana State Medical Society*, 1853, pp. 27.  
<sup>5</sup> Stickney, Ida Stearns, "Pioneer Indianapolis," *Civic Studies of Indianapolis*, No. 1, pp. 29-31.

to shake together without interrupting the school. Mr. James Blake, shaking every other day with ague, spent his well days gathering new corn and grating it on a horse-radish grater for the sick.<sup>5</sup> In Indianapolis alone 72 deaths are alleged to have occurred in the year of 1821, a loss of one-eighth of the entire population in one year.<sup>5</sup> The epidemic of 1845 to 1855 was even more widespread than the preceding ones, every part of Indiana being affected to a greater or less degree. Dr. Schell called the Wabash Valley one of the most famous malarial districts in the world!

The fevers steadily increased in virulence up until 1865, since which time they have gradually decreased. There is evidence that the disease has not been completely eradicated. Cases and deaths continue to be reported from time to time from various sections of the state. Beyond doubt there are many more cases and deaths which are unreported. It is well to remember that the anopheline mosquito is found in almost every part of Indiana.<sup>3</sup> During the six-year period, 1933-1938, one hundred and thirty-one cases of malaria have been reported from twenty counties. The dangerous estivo-autumnal parasites caused four cases with two deaths in Lawrence County in 1936 and four cases with three deaths in Gibson County in 1937. It is interesting that each of these outbreaks was at first supposed to be poisoning by arsenic; the nature of the outbreak was first discovered in each instance by Dr. Culbertson, Director of Laboratories of the Indiana State Board of Health. In addition, interviews with physicians and health officers from various parts of the state frequently disclose cases of unreported malaria. Sometimes doctors appear to have forgotten that malaria is reportable. More often one may detect an undercurrent of reluctance to report a condition generally regarded as having been long since completely eradicated. Some doctors may fear the banter of their competitors. However, unduly ap-

prehensive physicians should reassure themselves that it is not the prompt reporting of a serious health menace that is subjected to derision so much as the display of an unstable character swayed by childish fears. Table I compares Indiana's reported cases of malaria for 1938 with those of the preceding five years.

Table II compares Indiana's deaths from malaria for 1938 with those of the preceding five years.

#### DEATHS BY COUNTIES

	1933	1934	1935	1936	1937	1938
Bartholomew	---	---	---	---	1	---
Clinton	1	---	---	---	1	---
Daviess	---	---	---	---	---	1
Dubois	1	1	---	---	---	---
Fountain	1	---	---	---	---	---
Gibson	1	1	---	---	3	---
Grant	---	1	---	---	---	---
Greene	---	---	---	---	---	1
Jackson	---	---	---	1	---	---
Jay	---	---	---	---	---	1
Jefferson	---	---	---	---	1	---
Knox	3	1	---	---	1	---
Lake	2	---	1	---	2	---
Lawrence	---	---	---	2	---	---
Madison	1	---	---	---	---	---
Marion	6	3	---	2	3	1
Orange	---	1	---	1	1	---
Owen	---	---	---	---	1	---
Perry	1	---	---	---	---	---
Pike	---	1	---	---	---	---
Porter	---	---	1	---	---	---
Posey	---	1	---	---	---	---
Randolph	---	---	---	---	1	---
Rush	---	---	---	1	---	---
Spencer	---	2	---	1	1	---
St. Joseph	---	---	1	1	---	---
Tippecanoe	---	---	---	1	---	---
Tipton	---	1	---	---	---	---
Vanderburg	6	2	3	---	3	1
Vermillion	---	1	---	---	---	1
Vigo	---	1	1	---	3	2
Wayne	1	---	---	1	1	1
Totals	24	17	7	11	23	9
Total Deaths 1933-1937: 82						
Yearly Average 1933-1937: 16.4						

#### REPORTED CASES BY COUNTIES

	1933	1934	1935	1936	1937	1938
Allen	---	---	---	---	---	1
Carroll	---	---	---	---	2	---
Crawford	10	---	---	---	---	---
Dearborn	---	---	---	1	---	---
Elkhart	---	---	3	---	---	---
Floyd	---	---	---	---	3	---
Jasper	---	---	5	---	---	---
Jennings	1	---	---	---	---	---
Johnson	1	---	---	---	---	---
Kosciusko	---	1	---	---	---	---
Lake	---	---	---	---	1	1
Lawrence	---	1	---	4	---	---
Marion	---	5	14	2	---	5
Marshall	---	---	3	---	---	---
Pulaski	---	---	2	---	---	---
Ripley	---	1	---	---	---	---
Tippecanoe	1	---	---	---	---	---
Vanderburg	---	---	---	1	---	---
Vigo	---	---	---	---	---	65
Wells	---	---	---	1	---	---
Totals	13	8	27	9	6	72
Total Cases 1933-1937: 63						
Yearly Average 1933-1937: 15.75						

The data indicate that some cases are probably not reported and also that a minor epidemic occurred in Vigo County in 1938. This outbreak was discovered during the investigation of a layman's complaint. Two highways were recently constructed parallel to a railroad passing through the affected community. Laborers engaged on these projects left a series of undrained borrow pits between the three roads. Some of the pits adjoined the town and furnished an ideal breeding place for mosquitoes.

Following the discovery in 1918 by Wagner and Von Jauregg that, after an attack of induced malaria, patients suffering from general paresis showed considerable improvement in mental condition, this form of therapy was rapidly accepted.<sup>6</sup> Some physicians have thought it possible that a few of the patients might continue to harbor

<sup>6</sup> The Rockefeller Foundation, "Malaria," *The International Health Division Annual Report*, pp. 135-138, New York, 1937.



gametocytes for some time after discharge from the institutions administering the treatment. Although quinine is alleged by some to have no direct effect on gametocytes, it is asserted that plasmodium quickly destroys this stage of the amoeba in both tertian and estivo-autumnal forms of the parasite.<sup>7</sup> Some clinicians assert atabrin is superior to quinine in treating the vegetative stage of the organism and that it is also effective against the schizonts of malignant tertian malaria.<sup>8, 9</sup> Recently prontosil has been recommended in cases of chronic and malignant malaria.<sup>10</sup> In addition, other drugs, including arsenicals, are advocated by some. However, all of the drugs used in the treatment of malaria are toxic and their administration may be unsafe unless supervised by a physician. Even then their effectiveness must be checked by repeated blood examinations.

Ten years ago Mr. Rail and Dr. Harvey,<sup>11</sup> of the Indiana State Board of Health, took smears and specimens from six of the paretics in Indiana known to have been inoculated with malaria. The blood of the sixth patient contained tertian parasites. This finding was confirmed by a malariologist of the United States Public Health Service. Dr. John Hare, superintendent of the Evansville State Hospital, says that patients who have been inoculated with malaria are not discharged until recovery has been insured by treatment with quinine followed by one or several courses of an arsenical. Dr. Max Bahr, superintendent of Central State Hospital, asserts that although anopheline mosquitoes are prevalent on the hospital grounds, not one case of accidental infection has occurred in that institution.

Dr. Paul D. Williams, superintendent of the Logansport State Hospital, in a personal communication, states: "There have been several instances where clinical observations seem to point towards the artificially inoculated parietic being a source of this infection. One such instance occurred in this (Longcliff) hospital in July and August of 1935. During that period, at least, four cases of malaria occurred among the hospital population. They recovered following the use of quinine. The proof was so striking at that time that we isolated all our artificially inoculated paretics and screened the windows and doors of the isolation rooms carefully. Following this no additional cases of malaria occurred among the hospital population. However,

about the same time there seemed to be an increase in the number of malaria cases in and about the city of Logansport. The blood smears taken at various times, to catch a cycle of growth, showed the red cells to be thin in the center, and somewhat washed out in appearance. Quite a few red cells showed hyaline like bodies, and several of these had some fine granular-like appearing pigment on one side. These forms were not true signet ring forms. It was impossible to demonstrate the typical changes of the organism that were found in the blood studies on the artificially induced therapeutic malaria. All the smears taken on the suspected cases showed practically the same microscopic picture."

During the course of experiments undertaken with the object of perfecting a method of providing malarial infection for the inoculation of paretics, Wayne<sup>12</sup> found that infection of our three major species of Anopheles with plasmodium of malaria was difficult when the mosquitoes were allowed to feed on patients inoculated with the blood of carriers; only 3 per cent were inoculated under the conditions of the experiments.

According to Wagner-Jauregg<sup>13</sup> there is no danger of disseminating malaria by its therapeutic use. Not a single case is known to have occurred either in Berlin or Vienna among physicians, nurses, non-inoculated patients or citizens following exposure to thousands of patients inoculated with malaria. However, two authentic cases occurred in Sweden. Probably the chief danger is from recurrence. It is said that England reports 2 per cent recurrences.

The data appear to indicate that sporadic cases and occasional minor epidemics of malaria still occur in Indiana. Apparently the therapeutic use of malaria may create new sources of infection. Although some experiments indicate that the therapeutically induced disease is transmitted with difficulty, the data from Longcliff suggest that its transfer is possible. Nevertheless, neither Dr. Williams nor his associates believe that either the clinical or laboratory data are, as yet, sufficiently convincing; more research is needed. However, these data do not apply because our problem is concerned only with the possibility that *dismissed paretics who have been treated with therapeutic malaria may suffer relapses and thus become sources of infection*. The observations of Dr. Bahr, Dr. Hare, and Dr. Williams do not include a single case infected from such a source. Dr. Harvey proved that one case, inoculated about a year previously, was still a carrier of tertian parasites. Although inoculated at one of the state hospitals, she remained at home under the care of a physician. Later she spent three months in a state

<sup>7</sup> Rosenau, Milton J., *Preventive Medicine and Hygiene*, Sixth Edition, pp. 220, D. Appleton-Century Company, New York, 1935.

<sup>8</sup> Craig, Charles F., "Recent Research in the Treatment of Malaria," *Southern Medical Journal*, 27:456, June, 1934.

<sup>9</sup> Johnson, P. D., "Treatment of Malaria in Europeans by Atabrine," *British Medical Journal*, 1:473, March 17, 1934.

<sup>10</sup> Hill, Roy A., and Goodwin, M. A., "Prontosil in the Treatment of Malaria," *Southern Medical Journal*, 30:1170-1172, December, 1937.

<sup>11</sup> Harvey, Dr. V. K., "Malaria in Indiana," *Monthly Bulletin of the Indiana State Board of Health*, 34:49, 50, April, 1931.

<sup>12</sup> Wayne, Bruce, "Note on Experimental Infection of Anopheles Punctipennis with quartan Malaria," *Public Health Reports*, 47:1771, August 26, 1932.

<sup>13</sup> Wagner-Jauregg, "Is Inoculation Malaria a Danger to the Community?" abstract in *Venereal Disease Information*, 14-15:210, August, 1933.

hospital and again returned home. The history suggests that this patient may not have had the benefit of curative procedures that were carefully controlled by laboratory work. It appears to be the universal opinion of men with great experience in the administration of therapeutic malaria that danger to the community need not accompany or follow this treatment. However, a recent study by Kitchen and his associates<sup>14</sup> indicates that artifi-

cially induced malaria may induce positive Wassermann and Kahn reactions in non-syphilitic persons.

The plasmodia may be reintroduced into previously infected areas by the employment of imported labor, the return of soldiers from foreign service, commerce, and travel. Recent investigation proves that in spite of precautions taken by airways and health authorities, live mosquitoes and other insects are still being transported into this country by aircraft.<sup>15</sup>

<sup>14</sup> Kitchen, S. F., Webb, E. L., and Kupper, W. H., "The Influence of Malarial Infections on the Wassermann and Kahn Reactions." *Journal of the American Medical Association*, 112:1443, April 15, 1939.

<sup>15</sup> Welch, E. J., "Insects Found on Aircraft at Miami, Florida in 1938, *Public Health Reports*, 54:561, April 7, 1939.

## SCABIES, BODY LICE AND TICKS

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Numerous parasites, animal or vegetable, may infest the human skin, giving rise to polymorphous affections; of these only the more common will be mentioned here.

### SCABIES

Scabies is one of the commoner skin diseases, constituting about five per cent of all dermatoses. In general, scabies is more frequent in European countries than in America.

Scabies is a contagious parasitic dermatosis, due to the *Acarus scabiei* (*Sarcoptes scabiei*). It is extremely pruritic and is characterized by a typical dermatological lesion, the burrow, and by polymorphous eruptions which have regional and symmetrical distribution.

Scabies ("the itch") is observed in patients of all social strata but is, however, seen more often among the poorer classes. The eruption is localized or predominates in certain areas of predilection which should be systematically explored in all patients complaining of nocturnal itching. These are: the interdigital spaces, the lateral aspects of the fingers, the wrists, the elbows, the anterior wall of the axilla, the ankles, the penis and glans, the buttocks, and in women the breasts. The lesions may also occupy any other region excepting the head, neck, and back, which usually are free. This topography is characteristic.

The pathognomic feature of the itch is the burrow, and these narrow grayish tracts represent the passage dug by the parasite in the horny layer of the epidermis. They are often dotted with black points which indicate the exit orifices of the newly hatched larvae. Their general color, which is darker in the uncleanly patients, is for the most part due to the excreta left by the *Sarcoptes* and to the deposits of dirt and dust. The burrows are more readily discovered on the fingers, the wrists and elbows—areas where there is a thick epidermis.

The *Acarus* lives upon the skin which is penetrated only by the female parasite which burrows into the stratum corneum and there deposits her

eggs. The female parasite when impregnated is from 0.3 mm. to 0.4 mm. in length, whereas the male is about half that size. The fertilized female of the *Sarcoptes scabiei* is responsible for digging the burrows and causing the symptoms of scabies. The male dies after copulation and the female dies after the ova are laid. In from five to ten days the larvae are hatched out.

Other lesions of scabies are secondary eruptions of variable characters and abundance and consist of excoriations, blood crusts which result from scratching, eczema and various pyodermatitides such as impetigo, ecthyma, and folliculitis. The itching of scabies is usually intense and always is worse after retiring and often causes complete insomnia.

The topography and polymorphism of the eruptions, the nocturnal itching, and the contagiousness, make the diagnosis probable; the demonstration of burrows and the *Acarus* make it positive. A vesiculo-pustular eruption about the hands should always arouse suspicion; the distribution of scratch marks is an important guide, and the history of other members of the same family is a valuable link in the evidence.

### Treatment of Scabies

Scabies never heals spontaneously, and the treatment must be very carefully carried out in order that the most satisfactory results may be obtained. The old remedy is some form of sulphur, and is of most value. There is an abundance of formulae. A good preparation, for instance, is:

Sulphur præcip. ....	10.0—15.0
Bals. Peru .....	10.0—15.0
Petrolatum .....	
Lanolin, aa qs ad.....	120.0

The patient should bathe in hot water, with a generous supply of soap, for twenty minutes, after which one-third of the above preparation is thoroughly rubbed into the skin from the neck down, being careful to cover the entire skin surface. The next morning apply another third of the ointment



from the neck down. That evening apply the rest of the ointment to the same regions. The next morning a tub bath must be taken with soap and water. All sheets, pillow cases, under clothing, and sleeping garments must be changed and sterilized by boiling.

Occasionally, a second course of treatment may have to be undertaken and, if so, a more mild concentrated preparation of sulphur should be employed, always keeping in mind the possibility of a sulphur dermatitis developing in sensitive individuals in whom, if treatment is prolonged, there will result a condition worse than the original disease. A dermatitis of this nature is best treated by soothing starch or oatmeal baths and the local application of calamine lotion or equal parts of boric acid and zinc oxide ointments.

In the treatment of scabies, Ravout and Mahieu have taken advantage of the fact that the addition of an acid to a solution of sodium thiosulphate results in the precipitation of colloidal sulphur grains, and they report excellent results. After bathing with soap and water, the patient applies a forty per cent solution of sodium thiosulphate, and while the skin is still moist, a four per cent solution of hydrochloric acid is applied. A sulphur deposit forms on the skin and is allowed to dry. The applications are again repeated. The procedure is undertaken for several days in succession which is all that is necessary. This method is harmless, rapid, cheap, and effective.

#### PEDICULOSIS AND PHTHIRIASIS

Under these names are designated the cutaneous lesions produced by lice. The females, more numerous and somewhat larger than the males, lay a large number of eggs with a chitinous envelope which are designated as nits. When they hatch, the young resemble their parents and undergo no metamorphosis.

Three kinds of lice are parasitic on man. One variety is found in the scalp (*pediculus capitis*), another in the clothing (*pediculus vestimentorum*) and in the third type of infestation (*pediculus pubis*) the insect usually thrives in the pubic region, but may be found in the hair on other parts of the body, especially about the arms, axillae, on the chest and limbs of a hairy man, and sometimes on the eyebrows and even on the eye-lashes.

The three different organisms vary in body contour and mode of living, but are similar in that they feed on their victim's blood.

#### *Head-lice*

The head louse, *pediculus capitis*, has a slender shape, about 2 mm. long and is a gray color with black dots on the abdomen. It is found upon the scalp, especially in children, and most often among the poorer classes.

As a result of their bites, itching is intense, and as a result of scratching, secondary infection may give rise to impetigenous, ecthymatous and eczematous lesions about the nape of the neck.

In neglected cases the scalp of the patient may become covered with matted hair, teeming with lice and studded with many nits, the scalp bathed in foul smelling pus; the occipital and other neighboring glands become enlarged.

Pediculosis of the scalp develops and predominates in the occipital region. A pruritis localized at this point is always suggestive of lice and these should be looked for, irrespective of the age or social standing of the patient.

#### *Body Lice*

In pediculosis of the body, *pediculus vestimentorum* or *corporis*, the patient complains of itching, especially about the shoulders, trunk, and on the exterior aspects of the limbs. Itching never occurs about the hands or feet. There is little to be seen on the body beyond the trauma as a result of scratching—parallel rows of blood crusts. Upon close examination, tiny hemorrhagic papules can be made out. As a rule, no pediculi can be found on the skin, but searching the clothes about the folds of the underwear and especially about the collar band will reveal the presence of many body-lice. So partial is the parasite to this region that evidence of severe scratching about the neck and shoulders in persons of doubtful cleanliness is presumptive evidence of the presence of lice. Confusion between *pediculus corporis* and scabies may be avoided if we remember the difference in distribution and the absence of burrows.

#### *Pediculus Pubis*

*Phthirus inguinalis*, commonly known as the crab-louse, is almost as broad as it is long, somewhat resembling a crab. It lives on the hairy regions of the pubis and neighboring regions, where it clings to the base of the hairs by means of curved hooks on its feet. In hairy men, it may invade the thighs, trunk and beard; in both sexes it may be found in the axillae, eyebrows, and eye-lashes.

The affection is usually acquired through sexual intercourse, but also indirectly through toilets and infested bedding.

*Pediculus pubis* gives rise to more or less intense itching in different individuals and to scratching with its usual sequelae. This etiology must be kept in mind in the differential diagnosis of an eczema or pyodermitis of the regions mentioned. Together with the crab-lice, nits will be found sticking to the hair near their base.

Occasionally peculiar bluish green pigmented pea sized spots (*maculae caeruleae*), caused by the bite of the crab-louse, may be seen.

#### *Treatment*

In pediculosis of the head, if the patient be a child, the hair should be cut short, while in women the hair need not be sacrificed, although in these patients this procedure will facilitate treatment. One of the best methods of eradicating the disease is to apply crude petroleum to the scalp and apply

a loose head bandage which is allowed to remain in place for twelve hours. Care must be taken to guard against exposure to an open flame. This danger may be overcome by diluting the petroleum one-half with olive oil or mineral oil before applying it to the scalp. At the end of twelve hours the scalp should be thoroughly shampooed with soap and water.

Xylol also is an excellent parasiticide. It is used twenty-five per cent xylol in petrolatum and applied twice daily for several days, and its use should be supplemented by frequent shampoos. The glutinous material, fixing the nits to the hair, should be dissolved by wetting the hair with acetic acid (vinegar) and combing the hair carefully with a fine-tooth comb. This process should be repeated as often as necessary.

In pediculosis of the body, the parasites must be killed by disinfection of the clothes. The underwear may be boiled and the outer clothing exposed to the dry heat of a baking oven. Dampening the clothes and then pressing the seams with a hot iron is an effective method of destroying the ova. Mild applications such as five per cent ammoniated mercury ointment, or equal parts of ammoniated mercury ointment and boric acid ointment, should allay any irritation that may have resulted from the presence of the lice on the skin.

In the treatment of pediculosis pubis, the parts should be cleansed with soap and water after which there is probably no more efficient preparation to be used than that of a twenty-five per cent xylol in petrolatum. It is applied twice daily, after which the patient bathes. This is usually curative. If eczematous manifestations develop as a result of the affection they are most often best treated by soothing, anti-pruritic lotions or ointments. In pediculosis of the eyelashes the parasites should be picked off with small forceps and a weak yellow oxide of mercury ointment applied to the surface and margins of the lid several times daily.

#### IXODES

The wood tick is usually found on trees and underbrush, especially where pine and fir trees are growing. The female is the offender and attacks the human being by thrusting her beak into the skin. After suction of the blood from the wound, the body of the tick swells to the size of a small pea and remains for several days in the same position. By forcible attempts at extraction of the intruder, the proboscis is liable to be broken off and left in the wound where it may give rise to much pain and inflammation. It is best to allow the parasite to feed its fill of blood, when it may be readily removed by the application of a few drops of spirit of turpentine or benzine. The cutaneous lesions are usually urticarial and itch intensely. Soothing and anti-pruritic lotions or ointments should be used.

#### ROCKY MOUNTAIN SPOTTED FEVER

This eruptive disease has been known in the valley of the Bitter Root River in western Montana

and Idaho since 1880. The disease has since been reported from nearly all the states in the Rocky Mountain group—California, Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming. Cases have also been reported from many adjoining states, also the District of Alaska. This disease is especially interesting because of its geographical limitation, seasonal prevalence, intimate association with the infected wood tick (*Dermacentor Andersoni*) and variation in severity in the different localities. It occurs exclusively in the spring and early summer, between the months of March and July, and naturally attacks those whose occupation takes them into the brush and exposes them to the bite of the infected ticks. The disease is found more often among miners, sheep herders, ranchmen and lumbermen; therefore, males are more often victims of the disease. The affection is not contagious.

Rocky Mountain Spotted Fever in human beings is due to the accidental inoculation of the Rocky Mountain spotted fever virus through the bite of an infected wood tick (*Dermacentor Andersoni*). This virus is propagated in nature, first, by means of infected ticks feeding on susceptible animals, these animals in turn transmitting the infection to other feeding ticks, and, too, through the hereditary transmission of the virus from an infected female tick to her eggs, and thereafter to a part of her progeny, through the different stages of their development as larvae, nymphs and adult ticks. Some eight or ten small wild animals of these regions serve as hosts for the larvae of the *Dermacentor* ticks and are also susceptible to the infection, and are responsible for the perpetuation of Rocky Mountain spotted fever in nature. These animals include the ground squirrel, pine squirrel, woodchuck, chipmunk, prairie dog, badger, jack rabbit, cottontail and snow-shoe rabbit.

Briefly, in regard to the symptoms, after an incubation period of from five to eight days the patient complains of malaise, chilly sensations, nausea, general soreness, especially about the head, back and limbs. Epistaxis is almost always present and may become severe. Constipation is a prominent symptom. The temperature usually rises rapidly, with a slight morning remission, the maximum (101-106) being reached between the seventh and twelfth days, when in favorable cases it declines by lysis and reaches normal between the second and third week. During the third or fourth day after the onset, the eruption develops at first about the wrists, ankles, and legs and gradually spreads crop-like to the back, chest and abdomen. In the beginning the lesions are pink or bright red, pin-head to finger-nail sized macules, which after several days become darker in color and still later hemorrhagic (purpuric). The eruption fades as the fever declines and terminates with desquamation during convalescence. In the very severe cases gangrene of the fingers, toes, penis, and scrotum may develop.

The mortality varies according to the locality



and in different years. It seems that the average mortality ranges from five to fifteen per cent; it has ranged as high as ninety per cent in Montana and as low as two per cent in Idaho. In the fatal cases, death usually results during the second week of the disease.

No specific medication is known and the best results are obtained with symptomatic and supportive treatment.

Nineteen cases of Rocky Mountain Spotted Fever have been reported in Indiana of which only five were reported prior to 1938. Of the nineteen cases, nine were fatal, or a mortality rate of 47.3 per cent.

These cases have occurred in the following counties:

County	Number	Result
Fountain	1	Recovered
Montgomery	2	1 Recovered
Owen	1	Fatal
Monroe	1	Recovered
Vigo	3	2 Recovered
Scott	2	1 Recovered
Ripley	3	2 Recovered
Marion	2	Recovered
Cass	1	Fatal
Delaware	1	Fatal
Dearborn	2	Fatal

THE MANAGEMENT OF ABORTION\*

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Medical science has made tremendous strides toward the ideal treatment of the abortion case, but still there is no really infallible method or absolutely reliable routine for the management of this condition. A method applicable to all cases herewith is presented, the treatment carrying with it a minimal risk for the life of the patient. The discussion is based upon a short review of the literature to date and upon personal experiences both in Baltimore and Lafayette.

Three types of abortions are considered: the complete, the inevitable, and the incomplete. Threatened and habitual abortions will not be discussed, nor will there be outlined the frequently accompanying complications such as perforation, phlebitis, cellulitis, and peritonitis, this for the sake of brevity and conciseness.

In order to emphasize the importance of the abortion case, let us view the problem which confronts the physician. It has been reliably computed<sup>1</sup> that there occur close to 700,000 abortions and 8,000 abortion deaths annually in the United States. These figures are, of course, estimates only, because we cannot depend wholly upon the vital statistics of any individual state or even of the country for the actual number. An abortion seldom is recorded, and even though the mother dies the cause of her death often is concealed for obvious social reasons. For each death several women having abortions, whether they be criminal, therapeutic, or spontaneous, are disabled permanently. Menstrual disturbances follow, and many are rendered sterile or susceptible to unending suffering in future pregnancies. Considering these facts, these numbers then scale the more tragic heights.

This needless wreckage of human life is one that intimately is tied into the very woof and fibre of the social and the moral life of our people; it is

instigated by an abysmal ignorance of sex and by foolish and ineffective contraceptive and protective measures; it is furthered by improper laws. To the physician comes this unfortunate woman. It is his responsibility to treat this patient who is foul in odor, feverish, bleeding, and weak.

How shall the case be conducted? Before the nineteenth century, the treatment was based upon poor medical logic and consisted largely of the administration of strong infusions of herbs, the application of poultices, and even on the use of external violence. Then, during the nineteenth century, numerous daring and zealous men proposed more active methods. As early as 1806, Burns,<sup>2</sup> of Glasgow, advocated the plugging of the vagina with a soft cloth dipped in oil, and he said that manual assistance was permissible if not done too hastily. In Germany, Dührssen<sup>3</sup> advised the immediate evacuation of the uterus by a sharp curette. In this country, Hodge,<sup>4</sup> in Philadelphia, popularized the dull curette. In England, during the '90s, the use of carbolic acid, the boiling of instruments, and uterine packing came into vogue, but they still employed the curette in most cases.

The turn of the century witnessed a great increase in the number of criminally induced abortions. Winter,<sup>5</sup> in 1911, following an intensive study in Germany, showed the value of conservatism and advocated a "hands off" policy in all cases. Uncleanliness, along with the introduction of pathogenic organisms, was the cause of most deaths then even as it is today.<sup>6</sup> This was the

\* Presented before the Section on Medicine of the Indiana State Medical Association at the annual meeting in Indianapolis, October 5, 1938.  
<sup>1</sup> Taussig, F. J.: *Am. J. Obst. & Gynec.* 33:711-714, 1937.  
<sup>2</sup> Burns, J.: *Observations on Abortions: Burn's Obstetrical works.* New York, Collins and Perkins, pp. 6-66, 1809.  
<sup>3</sup> Dührssen, A.: *Treatment of Abortion: Taussig's Abortion—Spontaneous and Induced,* St. Louis, C. V. Mosby Co., pp. 158, 1936.  
<sup>4</sup> Hodge, H. L.: *Principles & Practice of Obstetrics,* Philadelphia, Blanchard and Lea, pp. 469, 1864.  
<sup>5</sup> Winter, G.: *Treatment of Abortion: Taussig's Abortion—Spontaneous and Induced,* St. Louis, C. V. Mosby Co., pp. 158, 1936.  
<sup>6</sup> Reinberger, J. R., & Russell, P. B.: *J. A. M. A.* 107: 1527-31, 1936.

basis of his conservatism. Winter's proposal was considered revolutionary in most clinics and schools throughout the world, and his teachings were not generally adopted. So, today, we find that active therapy continues to have nearly as many advocates as does the conservative treatment. Even with the swing towards conservatism, many prominent gynecologists, such as Sternberg<sup>7</sup> of Berlin, Simon<sup>8</sup> of Munich, Schwarz,<sup>9</sup> and Gellhorn<sup>10</sup> of St. Louis, and Studdiford<sup>11</sup> of New York, still favor active therapy. Clinicians like Curtis<sup>12</sup> and Hillis<sup>13</sup> of Chicago, Anspach<sup>14</sup> of Philadelphia, and Farror<sup>15</sup> of New York are among those who advocate the expectant or the conservative treatment. Arguments for active or radical therapy usually are as follows: the advocates say that the fever falls sooner, that persistent bleeding lowers resistance and should be controlled at once, that the bacterial culture media of necrotic tissue is removed by instruments, and that hospitalization is shorter. The proponents of conservatism, in refutation, all exclaim that severe hemorrhage is rare, that interference opens new wounds and inoculates them with organisms, that the patient's encapsulation or zone of resistance is broken down if instrumented, that organisms decrease in virulence with time, that the cervix softens and dilates with waiting, and finally, that a lower mortality rate is produced.

I feel as Taussig states,<sup>16</sup> "the question is not whether active treatment is preferable to the conservative or expectant treatment, but when is active treatment preferable or when should active measures be employed?" Both forms of therapy have a useful and valuable place, but to adhere strictly to any one particular routine in every abortion patient is just as bad as placing every cardiac in bed and digitalizing him, or doing an immediate suprapubic prostatectomy in all cases of prostatism. We must be directed according to our findings in each individual.

The following method of treatment is somewhat selective and is similar to the management proposed by Taussig.<sup>17</sup> Therefore, it is important to discuss the different types of treatment which

are necessary in the handling of the complete, the inevitable, and the incomplete abortions.

There should be no question concerning the hospitalization of the abortion case. Too many attempts are being made to handle abortions at home. Any illness with as high a mortality as abortion requires those exacting facilities obtainable only in such an institution. Upon admission, a speculum examination is permitted, if desired, while obtaining data to classify the patient as clean or infected. Often some product of conception is found lying in the cervical canal. The removal of this with ovum forceps is good practice and may be all the operative treatment that is needed. Never go beyond the cervix at this early period.

In the complete abortion, where spontaneous evacuation is total, no active measures are necessary. However, it is wise to make a careful examination of the expelled fetus, placenta, and membranes to check on their entirety. The cessation of bleeding, the absence of uterine cramps or pains, and the normal involution of the uterus are accepted evidences that the abortion was complete. Rest in bed for 5 to 10 days, ergotrate, fluids, and the care of the breasts are all that are necessary in the complete, uncomplicated abortion.

In the inevitable abortion, where the fetal expulsion can no longer be averted, the objective is to hasten its expulsion. The question often is asked "How can one tell when the threatened abortion becomes inevitable?" A good working definition of the inevitable abortion is a patient who, in threatening to abort, shows no improvement after 10 days of bed rest, with treatment consisting of: sedatives, ice cap, mild laxative, progesterone, and Vitamin E. Further waiting invites infection upwards through the partially dilated and open cervical canal. Morse,<sup>18</sup> in Philadelphia, states that a prolonged delay is defeating the purpose of nature. Usually, immediate and spontaneous evacuation can be attained by simple measures, such as castor oil, hot soap suds enema, and ergotrate. If unsuccessful, then active treatment is warranted, such as will be outlined for the non-infected incomplete abortion.

Incomplete is the largest group of abortions. Some portion of the product of conception is retained. If fever free, and proven not to have been invaded by pathogenic organisms, then active therapy is proposed. Before proceeding with active measures, however, always ascertain that infection or at least potential infection does not exist. History, clinical findings, blood counts, and bacteriological studies are all valuable, easy to interpret, and routinely should be used. Watkins<sup>19</sup> states that a history of induction in 75 per cent of the cases can be obtained by tactful and confidential questioning. Spontaneous abortion thus comprises only one-fourth of the problem. An

<sup>7</sup> Sternberg, A.: *Deutsche Med. Wchnschr.* 52: 1548, 1926.

<sup>8</sup> Simon, W.: *Munchen. Med. Wchnschr.* 71: 1193-1198, 1924.

<sup>9</sup> Schwarz, O. H.: *Am. J. Obst. & Gynec.* 16: 715, 1928.

<sup>10</sup> Gellhorn, G.: *Am. J. Obst. & Gynec.* 16: 547-552, 1928.

<sup>11</sup> Studdiford, W. E.: *S. Clinics of N. Am.* 18: 511-522, 1938.

<sup>12</sup> Curtis, A. H.: Early months of pregnancy from a gynecological aspect. *Obstetrics & Gynecology*, III: pp. 702, 1937.

<sup>13</sup> Hillis, P. S.: *Surg. Gynec. & Obst.* 38: 83, 1924.

<sup>14</sup> Anspach, B. M.: *Am. J. Obst. & Gynec.* 16: 712, 1928.

<sup>15</sup> Farror, L.: *Am. J. Obst. & Gynec.* 16: 712, 1928.

<sup>16</sup> Taussig, F. J.: *Abortion—Spontaneous & Induced*, St. Louis, C. V. Mosby Co., pp. 170, 1936.

<sup>17</sup> Taussig, F. J.: *J. Ind. St. Med. Assoc.* 30: 227-231, 1937.

<sup>18</sup> Morse, A. H.: *Am. J. Surg.* 35: 331-337, 1937.

<sup>19</sup> Watkins, R. E.: *West. J. Surg.* 44: 338, June 1936.



induced abortion always is considered potentially infected.

In the non-infected incomplete abortion we are directed according to the period of gestation. With the patient in the hospital and under sterile conditions, as in any other operative procedure, she is managed actively as follows: for gestation under two months, the cervix is dilated with graduate metal dilators, and the retention product is removed with ovum forceps and curette. Cases falling in the second to fourth months of pregnancy should be evacuated with the gauzed finger and the ovum forceps only occasionally used. One may curette carefully for placental fragments. After the fourth month, oxytocics are advised to complete the abortion, while the cervix can be dilated with a gauze pack or even a small bag. If this fails, digital removal may be reasonably resorted to after twelve hours. Frequent vaginal instillations of a recognized antiseptic during the operation are of value. Scopolamine morphine analgesia or gas anesthesia is recommended for the relief of pain. Local anesthesia is permissible in clean cases, but the danger of the spread of infection has to be considered and this would contraindicate its employment.

Now for the treatment of the infected, febrile, or induced abortion. This is the group where physicians differ as to the method of management. Three decades ago, any physician who failed to adopt active measures was considered guilty of professional malpractice. Everyone thought that the patient should be cleaned out at once. There still is a feeling among many of the laity that something should be done immediately, and they are the more satisfied the more drastic the procedure, thus making radical treatment the easier path to follow.

Infected abortion is determined by history, clinical findings, blood counts, and bacteriological studies as has been stated before. Sufficient knowledge can be obtained hastily.

Delayed evacuation is proposed in the infected or potentially infected case. This treatment consists of five days of bed rest, the forcing of fluids, a high caloric diet, an oxytocic in the form of ergotrate, a mild laxative, and some form of sedative. Sulfanilamide and transfusions are given when necessary. Profuse bleeding is the only immediate indication for radical therapy. After five days, under this delayed treatment, in patients not having completed the abortion, nor having shown signs of extension, and whose temperature has fallen, dilatation and curettage are recommended. The rarity of complications under this management, while important when they occur, cannot be considered because of the time allotted. Waiting for five days is possible and during this time an early extrauterine spread of infection is delayed or stopped instead of enhanced by instrumentation. Remember that when there are signs of extension beyond the uterus, such as tenderness over the fundus, thickening of the adnexal regions, or

peritoneal irritation, proceed and continue to proceed with a "hands off" policy.

In the use of ergotrate referred to above, a dosage of 1/320 grain is recommended, either in tablet or ampule form, every three hours for eight doses. Blood transfusions frequently are necessary, not only with profuse bleeding, but also for the patient with fever and the concomitant anemia. Three hundred cubic centimeters of citrated, matched, whole blood are given every other day.

As to the use of sulfanilamide in abortions, it is reasonably true that this drug is being used universally. It is employed prophylactically in the potentially infected case, and it is advised curatively for the septic case. With the information we have at hand, it is important that it should be tried. Without a severe anemia or a lowered white count, or both, a dosage of 6 grams is recommended the first 24 hours (15 grains every 4 hours), to be followed by 3 grams daily (15 grains three times a day) thereafter for five days. Equal amounts of sodium bicarbonate should be given at the same time. Avoid giving sulfates in any form. For hypodermic or intravenous injection, dissolve one gram in 125 cc. of boiling normal saline solution, (0.9%), cool to 98.6° F. and give slowly at once (it does not keep). Seek to maintain a level of 10 mgs. of sulfanilamide per 100 cc. of blood.

Colebrook<sup>20</sup> originally did his clinical work with sulfanilamide upon the parturient. He reports a mortality at Queen Charlotte's Hospital of 5.5 per cent with the use of sulfanilamide as compared to a mortality rate of 22.8 per cent for the preceding five-year period without sulfanilamide.

Whitby<sup>21</sup> likewise reports a lowering from a previous mortality of 32 per cent in septic cases to 7 per cent when sulfanilamide was employed. From New York, Studdiford<sup>21</sup> states that incomplete abortions infected with streptococcus should receive a preliminary course of sulfanilamide during a period of observation prior to curettage. At the present time<sup>22</sup> Baltimore City and the Johns Hopkins Hospitals immediately start each streptococcal infected abortion upon sulfanilamide, there being a delay in induction of the drug only in the patient with severe anemia. De Lee<sup>23</sup> states that if sulfanilamide measures up to its present promise, we may convince everybody that non-interference is the best policy in managing abortions. But it is to be remembered as Williams,<sup>24</sup> of Liverpool, says: "The indiscriminate use of sulfanilamide may do more harm than good, and especially if it leads to a neglect of proper technique and increased interference." Its use is advised only as an adjunct to the delayed evacuation management of the infected case.

<sup>20</sup> Colebrook, L., & Purdie, A. W.: *The Lancet*, 2: 1291-1293, 1937.

<sup>21</sup> Whitby, L. E. H.: *The Practitioner*, CXL, 3: 324-325, 1938.

<sup>22</sup> Cheney, Wm.: Personal Communication, Sept., 1938.

<sup>23</sup> De Lee, J. B.: *Year Book of Ob. and Gynec.* Year Book Publishers, Chicago, pp. 40, 1937.

<sup>24</sup> Williams, B.: *The Lancet*: 343, Aug. 7, 1937.

## TREATMENT OF UNDULANT FEVER WITH SODIUM CACODYLATE

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Recently there has appeared in the literature numerous articles extolling the use of sulfanilamide in the treatment of undulant fever. Specific therapy of this disease has been rather disappointing and as a result a great many agents such as foreign proteins, serums, vaccines, intravenous neoarsphenamine, dyes, and antiseptics have been tried with little or no success.

Since 1932, I have treated successfully ten cases of typical undulant fever, all of whom were acutely ill. Each patient presented some, if not all, the characteristic signs and symptoms of this disease, principally intermittent temperature with an essentially negative physical examination. The cardinal symptoms of this group as a whole were:

(1) prolonged fever which could not be explained by physical examination, (2) loss of body weight, (3) slowly progressive anemia and weakness, (4) rigors and sweating, (5) joint pains, neuralgia, lumbago, sciatica, and (6) vague abdominal pains.

The physical and laboratory examinations in each instance were essentially negative with the exception of secondary anemia and a positive agglutination for undulant fever in every case. The titers ranged from 1:25 to 1:1280.

The treatment of these cases has been so simple and easy that I hesitate to report it for fear of contradiction. It consisted of intramuscular injections of sodium cacodylate in doses of 0.454 gms. twice weekly. In addition, supportive treat-

ment included bed rest, forced fluids, high caloric diet, and some preparation of iron such as Bland's pills for the anemia. This regimen was followed in all cases with the exception of one in which it was necessary to do a blood transfusion for profound anemia. The clinical response was prompt. In no case has the patient remained in bed more than two weeks. The temperature usually returned to normal after the fourth injection. The maximum number of injections given was twelve. There have been no relapses. All of these patients have been followed closely as they reside in this community and all are alive, well, and symptomatically free from the disease. The agglutination test has remained positive in six cases but in low serum titer.

I am unable to find anywhere in the literature where sodium cacodylate is mentioned favorably in the treatment of undulant fever and, of course, the use of it in the cases mentioned above has been purely empiric. It is known, however, that these cases do not just get well. They were all very ill before the injection of the drug and in a very short time after its use became symptom-free. Possibly the cacodylate did not help in every case, but in this small series of cases, all of the patients did not recover spontaneously regardless of the treatment. Since this is rather an incomplete and fragmentary study, it is hoped that this simple form of treatment will be given a further trial.

## SPINAL ANESTHESIA\*

### A STUDY OF A SERIES OF CASES

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Spinal anesthesia is not a new procedure. The first efforts in this direction date as far back as 1885. Wayne Babcock of Philadelphia was among the first in this country to use this procedure to any great extent, and for a long time used stovaine in an attempt to get away from the early objections caused by the use of cocaine which was definitely too toxic for safety. The method has had some waves of relative popularity and disuse for a number of years which may be accounted for by several factors which we will discuss later. There are a number of apparent inherent advantages. The relaxation obtained by this method is undoubtedly the best to be had from any type

of anesthesia. There is no other procedure with anything like comparable results in which the patient has so little of any toxic material to dispose of. There is no other method in which there is any less irritation of the respiratory tract. Like everything else in the field of medicine, spinal anesthesia is not foolproof, and it is not universally indicated or universally useful.

### REPORT OF A SERIES OF CASES

There were 114 patients in this group. The distribution as to sex was remarkably even. Of these 114 patients, 110 received one spinal only, 3 received two at different times, and 1 patient had three at different times.

The dosage of the various drugs is shown in Table II.

\* Presented before the Monroe County Medical Society, November 23, 1938.



TABLE I  
AGE AND SEX OF PATIENTS

	Male	Female	Total
11-15	2	3	5
16-20	8	10	18
21-25	16	18	34
26-30	13	11	24
31-35	3	8	11
36-40	2	3	5
41-45	2	3	5
46-50	1	....	1
51-55	4	1	5
56-60	3	2	5
61-65	2	....	2
66-70	3	....	3
71-75	1	...	1
	60	59	119

TABLE II  
DOSAGE AND DRUGS

.10 G. Neocaine	11
.12 G. Neocaine	9
.15 G. Neocaine	39
.20 G. Neocaine	31
.02 G. Pontocaine	6
.02 G. Pontocaine	23
.10 G. Neocaine	
	119

TABLE III  
OPERATIONS

	No. of each
Appendectomies	
A. Ruptured	1
B. Non-ruptured	65
Herniorrhaphies	
A. Inguinal	
I Single	13
II Bilateral	4
B. Femoral	3
C. Umbilical	2
Hysterectomies	
A. Supravaginal	5
B. Pan-hysterectomies	2
Salpingectomies and Oophorectomies	13
Ventro-suspension	16
Sterilization	10
Trachelorrhaphies	5
Cystocele repairs	4
D. & C.	6
Male genitalia	2
Hemorrhoidectomies	5
Other Rectal Conditions	3
Post-anal Dermoid removed	2
Enterostomies	2
Intestinal Resections	3
Intestinal Adhesions	4
Work on Lower Extremities	7
Kidney Operations	3
Ureteral Stone	1
Abdominal wall tumor	1
	182

TABLE IV  
NUMBER OF PROCEDURES DONE WITH  
ONE ANESTHETIC

One	87
Two	12
Three	14
Four	2
Five	3
Six	1
	119

A wide variety of operative procedures was done. For convenience in the study, we have grouped all of the procedures (Table III). There were 182 different operations. Where there was more than one procedure on the same patient, we have utilized this classification (Table IV) in designating the number of combined procedures done.

No attempt was made to select only good risk patients for spinal anesthesia. Many of the patients were persons for whom we felt other anesthetics were contra-indicated, perhaps felt that the spinal anesthesia was indicated as subjecting the patient to the least strain. In the case of combined procedures where operating time was going to be long, we have chosen to use spinal anesthesia in many cases as giving us operating time without the corresponding increase in amount of anesthetic agent to be excreted by the patient. There were a few patients in the list for whom we would have hesitated to do any surgery at all had we not had spinal anesthesia available. Our criteria of success of the anesthesia have been very rigid. Any case which had to have any stimulant measures, such as CO<sub>2</sub>O<sub>2</sub>, coramine, ephedrine, caffeine, or intravenous solution was not listed as perfectly successful. Any case in which we gave even a few whiffs of nitrous oxide, or even a small amount of ether, or to whom we gave a dose of morphine before the completion of the operation, was not listed as perfectly successful. We were always very liberal in the use of either adjuvant or stimulant measures whenever there was any indication, or whenever there was any question as to the patient's condition or comfort. There were only a very few times when any of these measures would have been deemed indispensable. Thus, the classification as used here, "perfectly satisfactory," means that *only* the spinal anesthesia was given with absolutely no supplementary stimulant and no adjuvant.

TABLE V  
SUCCESS OF ANESTHESIA

89 Perfectly Satisfactory
(One required second injection to get well in subarachnoid space).
30 In which supplemental or stimulant measures or both were used.

The use of some drugs or measures at the time of beginning the anesthesia or just prior to it, to prevent or minimize the fall in blood pressure which occurs always under spinal anesthesia, has long been a subject of discussion. Labat never favored the use of such measures but many writers have felt that it was valuable. For this purpose ephedrine sulphate has been most commonly used. In order to check our results on this point, we have tabulated our cases according to those who had ephedrine before the anesthetic drug was administered and those who did not have ephedrine beforehand. The number of cases and percentages are shown here.

TABLE VI  
USE OF EPHEDRINE

	With ephedrine before	Without ephedrine before
Total .....	21 17.6%	98 72.3%
Satisfactory .....	15 71.4%	74 75.5%
Used Stimulants .....	5 23.8%	20 20.4%
Used Supplementals ....	4 19.0%	7 7.1%

The measures used as supplements or stimulants are tabulated here.

TABLE VII

With Ephedrine before	Without Ephedrine before
Supplementals	
Morphine .....	Morphine .....
Ether .....	Ether .....
Gas Oxygen .....	N <sub>2</sub> O <sub>2</sub> .....
4	7
Stimulants	
CO <sub>2</sub> O <sub>2</sub> .....	CO <sub>2</sub> O <sub>2</sub> .....
Caffeine .....	Caffeine .....
Coramine .....	Coramine .....
Ephedrine .....	Ephedrine .....
5	Intravenous .....
	20

In interpreting these figures one must keep in mind the figures in the previous table in which there were more cases in which ephedrine was not used than cases where it was used. The percentages are not very conclusive.

The adjuvant measures listed were used roughly as follows. If there seemed to be occurring a slight return of sensation due either to too rapid absorption of drug or to unexpected lengthening of operation, a dose of morphine, while the patient was still on the table, sufficed. If the sensation became more marked, nitrous oxide or ether was used. Undoubtedly these could have been replaced in many cases by a small amount of local anesthetic in the cutaneous area involved. In case the patient's circulation was embarrassed by what we considered too marked a fall in blood pressure, we used CO<sub>2</sub>O<sub>2</sub>, ephedrine, coramine, caffeine, or intravenous fluids. Apprehensiveness on the part of the patient was usually taken care of by a little nitrous oxide, perhaps using a mixture with sufficient oxygen that it could hardly be called anesthetic. Nausea is prevented chiefly by encouraging proper ventilation of the lungs at frequent intervals throughout the duration of the anesthesia. If in spite of this or if the patient is not sufficiently cooperative in this direction, the

TABLE VIII  
INDICATIONS FOR ADJUVANT

Time .....	6
Circulatory .....	17
Apprehensive .....	5
Nausea .....	3
Age and Condition .....	3

nausea can be quickly stopped by the use of CO<sub>2</sub>O<sub>2</sub> for a very short interval. As this table VIII shows, the age or general condition of the patient was an indication for some adjuvant meas-

ure in three instances. One patient in the series required a second puncture and injection of anesthetic drug, the first one having failed because it was not fully in the subarachnoid space.

The only sequelae attributable to the anesthetic procedure, out of all of these cases, was headache, which was sufficient to cause comment on the chart and medication for it in 2 cases: pain in back, sufficient to cause comment on the chart and medication therefor, in only 1 case. Whether or not this was due to the anesthetic procedure is not known.

TABLE IX  
SEQUELAE OF ANESTHESIA

Slight headache .....	2
Pain in back .....	1

In this series there were five deaths:

(1) A 51 year old white male suffered for about three days from intestinal obstruction due to old adhesions in the appendiceal area which was freed under .15 G. neocaine spinal anesthesia. Following the operation, a second similar anesthetic was given to relieve ileus, which it did, but the patient died some hours later due to the recurrence of the ileus.

(2) A 25 year old white female had had repeated and long continued post-partum bleeding. An emergency dilatation and curettage was done under .10 G. neocaine, which procedure was successful in stopping the hemorrhage although the patient died shortly thereafter from exsanguination.

(3) A 39 year old white female was operated upon for carcinoma of the colon. .02 G. pontocaine was used as the anesthetic agent and a colostomy, appendectomy, and resection of the sigmoid were done. This patient died a number of days after the operation, and this death should not be attributed to the anesthetic used.

(4) A 54 year old white female, in an automobile wreck, sustained a comminuted compound fracture of the right patella which was repaired under .10 G. neocaine intra-spinaly. This patient had been a known diabetic for years. She was doing very nicely until the ninth day post-operatively when she died very suddenly, death apparently due to an embolus.

(5) A 38 year old white male complained of an abdominal mass which was diagnosed pre-operatively as a huge tumor of the left kidney. X-rays did not reveal the presence of metastasis, so, although the patient was in poor condition, it was decided to attempt operative removal of the tumor, which was successfully accomplished under .10 G. neocaine and .02 G. pontocaine, the operation being done a couple of days after a transfusion of whole blood had been given. The patient died a little more than 48 hours after operation. This would not be attributable to the anesthetic used.



## COMMENTS

This series shows spinal anesthesia to have a rather wide field of usefulness and certain definite advantages. The advantages it possesses explain the waves of relative popularity and use which it has had. Because of the small amount of anesthetic agent used, the excellent relaxation obtained, and the small amount of shock to the patient, it is found possible to use this anesthesia for poor risk patients and for patients for whom other anesthetics would be contra-indicated. For this reason it is used periodically for a group of poor risk patients and then, because some of them die, the method is blamed. In many instances, operators, because the technique seems so simple, have attempted to use spinal anesthesia without having had proper study or training in its use beforehand. Since no procedure is foolproof or without danger, we might reasonably expect that some of these patients would be lost, or bad re-

sults or after effects obtained. In our experience we believe that we have demonstrated, at least to our own satisfaction, that spinal anesthesia has a very definite place in the anesthetist's armamentarium and that properly used and controlled, it is a safe procedure.

In a number of these cases we have used the combination .10 G. neocaine with .02 G. pontocaine to secure quick onset of anesthesia with increased duration of the anesthesia.

## CONCLUSION

A series of 114 patients, including 119 spinal anesthetics and 182 operative procedures of various sorts, has been carefully studied as to the success of the anesthesia, the sequelae and other factors which might have affected the results obtained. We conclude that spinal anesthesia, properly used and controlled, is a very useful and safe procedure.

## ERYTHROBLASTOSIS FETALIS

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A pathological study has been made of four cases of erythroblastosis fetalis. These cases are of interest because of their non-familial incidence and are being reported to further stimulate interest in the differential diagnosis of this more frequently recognized condition.

It is generally conceded that the extra medullary hematopoiesis, which characterizes this condition, is a continuation of fetal hematopoiesis. Erythroblastosis fetalis is closely associated with hydrops fetalis, icterus gravis neonatorum and anemia of the new born. These conditions have been contrasted and compared by Diamond, Blackfan and Baty,<sup>1</sup> and need not be repeated here. Several additional cases have been reported since their review of twenty cases belonging to this group. Anemia pseudoleukemia infantum has been described in the German literature.<sup>2,3</sup> The cause of this condition is probably similar to erythroblastosis with jaundice and/or edema or without either jaundice or edema. In Cooley's erythroblastic anemia,<sup>4,5</sup> the enlarged spleen, hyperplastic bone marrow, and racial incidence are the chief distinguishing features. The marked-

ly enlarged liver associated with erythroblastosis fetalis is not an important feature in the condition Cooley has described.

Detailed accounts of the disease, erythroblastosis fetalis, have been given in numerous recent papers (e. g., Darrow,<sup>6</sup> Hawksley and Hightwood,<sup>7</sup>) to which the reader is referred for a more thorough account as to the etiology of the disease. The four cases studied were as follows:

## Case No. I

*Clinical Abstract:* White, full term male infant born 11-2-37. Normal parturition lasting about 12 hours. Crying and breathing normal. Mildly icteric at birth. Regurgitation followed each feeding. Vomiting persisted and he was given fluids subcutaneously. He developed difficulty in respiration and had a slightly elevated temperature, spasms, and convulsions. The stools and urine were "dark." Death occurred rather suddenly November 5, 72 hours after birth. Mother's age 31, gravida 2, para 2. The other sibling, 14½ months of age, living and well. Mother's Wassermann negative.

*Gross and Histologic Examination:* Fairly well developed and nourished white male infant, weighing 3,345 grams, 48 cm., crown-heel length. Mild generalized icterus, no edema or cyanosis. Subcutaneous fat thin and icteric. All the organs had a moderate icteric tinge.

<sup>1</sup> Diamond, L. K., Blackfan, K. D., Baty, J. M.: Erythroblastosis Fetalis, *J. Ped.* 1932: 1:269.

<sup>2</sup> Schniddle, H.: Die angeborene allgemeine Wassersucht. München. *Med. Wchnschr.* 1910. 57:397.

<sup>3</sup> Lehdorff, H.: Die Erythroblastenanämie. *Ergebnisse der inneren Medizin und Kinderheilkunde.* 1936. 50:568.

<sup>4</sup> Cooley, T. B.: Von Jaksch's Anemia. *Am. J. Dis. Child.* 1927. 33:786.

<sup>5</sup> Erythroblastic Anemia. *International Med. Digest.* 1934. 25:55.

<sup>6</sup> Darrow, Ruth R.: Icterus gravis neonatorum. *Archives of Path.* 1938. 25:378.

<sup>7</sup> Hawksley, J. C. and Hightwood, R.: *Quart. J. Med.* 1934. 27:155.

Peritoneal and pleural cavities: Negative.

Pericardial sac: Negative.

Heart: Weight 28 grams. Small patent foramen ovale. Myocardium rusty brown. Valves and endocardium, negative.

Lungs: Right lung weighed 30 grams. Some areas appeared slightly hemorrhagic. A frothy, serous, yellowish fluid exuded from the cut surfaces. The left lung weighed 25 grams and was well expanded. The cut surfaces were the same as the right lung. Each lung floated. There were numerous small petechial hemorrhages on the pleural surfaces. Microscopic: Many small intra-alveolar hemorrhages. Some nucleated red blood cells in the extravasated blood, and bronchial lumina.

Spleen: Weighed 30 grams. Cut surface was red, beeflike, and firm. Malpighian corpuscles not discernible. Microscopic: The pulp contains many nucleated red blood cells. There is no necrosis or acute inflammatory cell infiltration. Malpighian bodies small. Splenic sinuses do not appear narrowed.

Liver: Weighed 145 grams. Yellowish color and firm on section. Microscopic: Numerous foci of blood forming cells throughout the parenchyma. The cells are arranged in cords and strands rather than rounded islands. The bile capillaries are dilated, bile ducts and liver cells fairly well preserved. There is pigmentation of the endothelium. There is not as much evidence of hematopoiesis as in cases II, III, and IV.

Gall Bladder: Negative. Ink injected into gall bladder passed readily into duodenum.

Gastrointestinal tract: Negative. Stomach contained a few cc. of greenish bile.

Pancreas: Negative. Microscopic: Slight evidences of hematopoiesis between acini. Islands normal.

Adrenals: Negative, no evidence of hemorrhage. Microscopic: Occasional focus of immature blood cells, particularly in cortex.

Kidneys: The kidneys weighed 30 grams and exhibited characteristic fetal lobulations. There were a few reddish brown uric acid deposits in the medulla. Microscopic: Cortex and medulla contain an occasional focus of young blood forming cells.

Bladder and genital organs: Negative.

Thymus: Weighed 10 grams. Negative. Microscopic: Corpuscles normal in size. No hematopoiesis observed in parenchyma.

Brain: The head was not examined.

Bone marrow: Reddish brown.

Epiphyseal line of tibia: No evidence of osteochondritis.

Lymph node: Microscopic: Moderate hematopoiesis.

Bone marrow: Microscopic: Decalcified rib showed frequent myelocytes, normoblasts, and megakaryocytes. Hyperplastic.

Thyroid: Microscopic: Some colloid present but majority of follicles not fully developed. Some foci of immature cells in stroma.

#### Case No. II

*Clinical Abstract:* White, female infant, delivered 11-11-37, in latter part of ninth month. Normal parturition lasting about four hours. The baby was pallid, flaccid and apneic and died about two hours after birth. Mother's age 31: gravida 3, para 1. Two self induced abortions at 3 months accounted for her remaining pregnancies. Her Wassermann was negative.

*Gross and Histologic Examination:* Well nourished, pale white female infant. Flabby musculature and extremely mobile joints. Typical Mongolian facies. Weight about 2,720 grams, 42 cm., crown-heel length. Subcutaneous fat appeared edematous, musculature pale and flabby.

Peritoneal cavity: Contained about 100 cc. clear straw-colored fluid. Liver and spleen grossly enlarged.

Pleural cavities: Contained a few cc. of flaky fluid.

Pericardial sac: Negative.

Heart: Weighed 35 grams, patent foramen ovale and ductus arteriosus. Musculature, pale and flabby. Endocardium negative. Microscopic: Sudan iii stain negative for fat.

Lungs: Each lung weighed about 25 grams. The surfaces appeared normal and on section there were numerous areas suggesting atelectasis. Microscopic: Some atelectasis. Some nucleated red blood cells in bronchial lumina. Some alveoli showed bits of vernix and epithelial cells.

Spleen: Weighed 34 grams. The capsule appeared thin and glistening. Cut surface was grayish purple and firm. Follicles are not hyperplastic. Microscopic: Moderate congestion and innumerable diffuse areas of hematopoiesis throughout pulp. No necrosis or increase in connective tissue observed. Splenic sinuses do not appear narrowed.

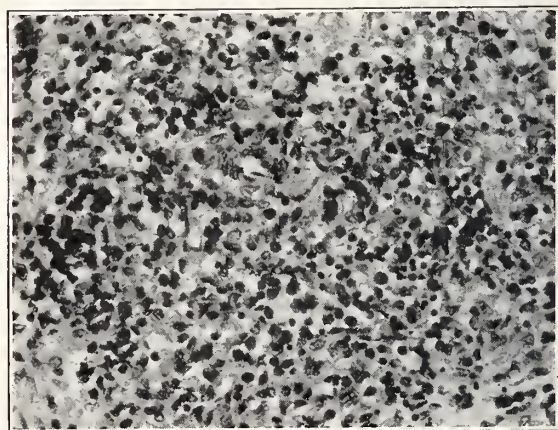


Fig. 1. Photomicrograph showing typical forms of blood forming cells in liver parenchyma.



**Liver:** Weighed 195 grams. The capsule was smooth and glistening; cut surface was uniformly purplish brown. The lobules could not be made out. **Microscopic:** Marked embryonic hematopoiesis throughout parenchyma. Sinusoids and blood vessels in portal areas contain numerous erythrocytes some of which are nucleated. Bile staining and some pigmentation. Not much congestion and bile capillaries are not dilated. The hematopoietic foci are more diffuse than the other cases.

**Pancreas:** Appeared pale and firm. **Negative.** **Microscopic:** Lymph node adjacent to pancreas hyperplastic.

**Adrenals:** Together weighed 10.5 grams. No hemorrhage. **Microscopic:** Few foci of immature cells, especially in cortex.

**Kidneys:** Weighed 15 grams apiece. Characteristic fetal lobulations. Structures stood out clearly on cut section. **Microscopic:** Many areas containing immature cells throughout. Nucleated red blood cells in tubules.

**Brain:** The head was not examined.

**Epiphyseal line of tibia:** No evidence of osteochondritis.

**Blood smears postmortem (1 hour) heart's blood.** **Microscopic:** Marked immaturity to myeloblast. Numerous nucleated red blood cells and megakaryoblasts.

#### Case No. III

**Clinical Abstract:** White female infant, delivered 11-22-37 in latter part of ninth month. Normal pregnancy and parturition. The latter lasted about eight hours. Respirations were shallow and feeble and there were brief periods of cyanosis. Contrast baths, oxygen and carbon dioxide, inhalations, alpha lobeline, parathyroid, atropine and caffeine sodium benzoate were used in an attempt to resuscitate the baby. Respirations became more feeble and she died 10 hours after delivery. Mother's age 31, gravida 3, para 2. Two siblings ages 7 and 2 years, living and healthy. Mother's Wassermann negative.

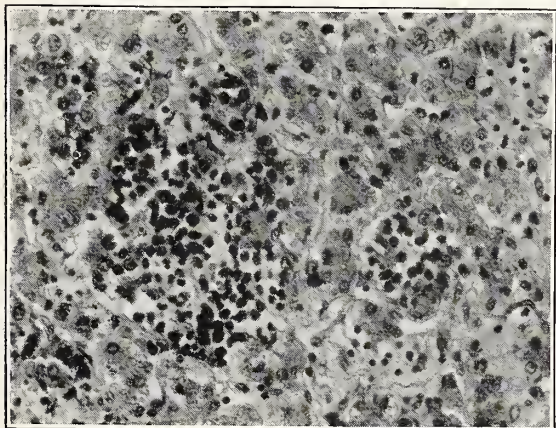


Fig. 2. Photomicrograph showing diffuse hematopoiesis in splenic pulp.

**Gross and Histologic Examination:** Well developed, nourished, white female infant, weighing 3,345 grams and 45 cm., crown-heel length. Generalized icterus. No edema. Some cyanosis of nail beds and mucous membranes. A blood tinged frothy fluid exuded from nostrils when pressure was made on chest. Subcutaneous fat normal in thickness and icteric. All of the organs had a slight icteric tinge.

**Peritoneal cavity:** **Negative.**

**Pleural cavities:** About 30 cc. of serous fluid in each cavity.

**Pericardial sac:** **Negative.** The heart weighed 30 grams. The myocardium was reddish brown. The foramen ovale was patent. Valves and endocardium **negative.**

**Lungs:** Each lung weighed about 25 grams. Both lower lobes were atelectatic. The upper lobes appeared to be fairly well expanded. A frothy yellow to hemorrhagic fluid exuded from the cut surfaces. **Microscopic:** Considerable atelectasis and congestion. Some of the alveoli contained nucleated red blood cells and a serum precipitate. Some bronchial lumina contained red blood cells.

**Spleen:** Weighed 41 grams. Grayish purple in color. The cut surface was a deep red color and firm. No corpuscles were evident. **Microscopic:** There was marked congestion and the corpuscles were small and difficult to make out. The pulp contained a few nucleated red blood cells. No increase in connective tissue.

**Liver:** Weighed 200 grams. The capsule was smooth and glistening. The cut surfaces were uniformly deep violet. **Microscopic:** Liver cells and bile capillaries contained considerable amount of yellowish bile pigment. There was evidence of hematopoiesis in the parenchyma and periportal connective tissue. The bile capillaries were not prominent or dilated. Bile ducts and liver cells were fairly well preserved. Not as much pigment present as in cases II and IV.

**Adrenals:** **Negative,** no evidence of hemorrhage. **Microscopic:** Occasional foci of young blood cells in cortex. Otherwise **negative.**

**Kidneys:** The right kidney weighed 14 grams, the left 18 grams. The capsules appeared thin and were readily stripped. Characteristic lobulations and markings. **Microscopic:** Occasional focus of blood forming cells in cortex and medulla. Vessels congested and contain some nucleated red blood cells.

**Thymus:** Weighed 8 grams. **Negative.** **Microscopic:** Active hematopoiesis in interlobular stroma and moderate in thymic parenchyma. Corpuscles normal in size.

**Bone Marrow:** Grossly hyperplastic.

**Epiphyseal line of tibia:** **Negative.**

**Brain:** No evidence of intracranial hemorrhage. The brain substance did not show any evidence of jaundice and was not fixed.

Bone marrow decalcified: Microscopic: Active hematopoiesis with frequent myelocytes and normoblasts.

Bone marrow imprint: Microscopic: Hyperplasia of all primitive blood forming cells.

Blood smears: Postmortem (2½ hours) heart's blood. Microscopic: Marked immaturity to stem cell. Occasional undifferentiated reticulo-endothelial cell.

Thyroid: Microscopic: Some colloid present. Acini quite variable in size. Epithelial cells of acini normal. Some foci of immature cells in stroma.

#### Case No. IV

*Clinical Abstract:* White, full-term, and male infant born 12-5-37. Normal parturition lasting about 11 hours. Slightly icteric and cyanotic at birth. There was considerable meconium and the cord was about the neck three times. Given artificial respiration, oxygen-carbon dioxide mixture inhalations, and alpha lobeline. The mucus was aspirated from the throat and the cry became lusty. The respirations soon became feeble and weak and death occurred about 20 hours after delivery. Urine on diaper was dark. Mother's age 26, gravida 3, para 3. Two siblings ages 7 and 3, alive and healthy. Mother's Wassermann negative.

*Gross and Histologic Examination:* Well developed white male infant weighing 3,770 grams and 44 cm., crown-heel length. Mild generalized icterus.

Peritoneal cavity: Negative. Liver and spleen grossly enlarged.

Pleural cavities: Negative.

Pericardial sac: Negative.

Heart: Weighed 40 grams. Small patent foramen ovale, and ductus arteriosus. Otherwise negative.

Lungs: Right lung weighed 70 grams. The left weighed 50 grams. The lungs float and on section several dark hemorrhagic areas evidence themselves. A frothy yellowish fluid exudes, on pressure, from the entire cut surface. Microscopic: Numerous intraalveolar hemorrhages with some nucleated red blood cells. Some macrophages in the interlobular connective tissue. More congestion than other cases.

Spleen: Weighed 40 grams. The capsule appeared thin and glistening. Cut surface dark red in color and firm. Corpuscles could not be distinguished from the pulp. Microscopic: Marked congestion and hemorrhage. No increase in connective tissue or inflammatory cell infiltration. Many nucleated red blood cells in the pulp.

Liver: Weighed 210 grams. Capsule was smooth and glistening. The cut surfaces were dark purple and soft. Microscopic: Marked embryonic hematopoiesis with numerous myelocytes and young nucleated reds in liver cords, also in perportal connective tissue. Less pigmentation than in case II. Bile staining is prominent and sinu-

soids appear dilated at expense of liver cells. More congestion than in previous cases.

Pancreas: Negative. Microscopic: Very slight evidences of hematopoiesis in stroma between acini.

Adrenals: Each weighed about 5 grams. There was no adrenal hemorrhage. Microscopic: Scattered immature cells in cortex.

Kidneys: Each kidney weighed 20 grams. The capsules were thin. The cut surfaces were reddish brown and the structures stood out clearly. Microscopic: Occasional foci of young blood forming cells in cortex and medulla. Smaller veins congested, with an occasional nucleated erythrocyte.

Thymus: Weighed 10 grams. Was slate colored and firm. Microscopic: Some hematopoiesis in interlobular stroma. Very little evidenced in thymic parenchyma. Thymic corpuscles appear larger than normal.

Bone marrow of ribs: Reddish brown in color.

Epiphyseal line of tibia: Negative for osteochondritis.

Brain: No intracranial hemorrhage.

Blood smears: Post mortem (7 hours) heart's blood. Microscopic: Marked immaturity to myeloblast. Numerous nucleated erythrocytes.

#### RESUME OF CASES

The more important pathological findings have been summarized in the accompanying table. Unfortunately, ante mortem hematological studies were not made in any of the four cases. It is interesting to note the non-familial, non-syphilitic incidence of this condition as well as its association with mongolism in case II.

Attention has been called repeatedly to the characteristic golden vernix caseosa, amber amniotic fluid and enlarged placenta. No mention was made of their presence in the cases reported.

The outstanding features are the enlarged heart, spleen and liver and the generalized extramedullary hematopoiesis. This is more constantly noted in the liver and spleen and represents a persistence of the fetal state of the hematopoietic system without a corresponding retardation in general embryological development. The embryonic hematopoiesis was generally characterized by myelocytes and normoblasts. The latter were far more numerous in all instances.

Whether or not the longer post-natal age of case I has affected the weight of the organs listed is highly conjectural in the light of our present knowledge. It is also interesting to note that in this case (I), the young cells, in the liver, were arranged in cords and strands rather than clumps or "nests" and this was the only case in which bile capillary dilation was prominent.

Case II, in addition to its association with mongolism, is interesting because it was the only case that was not jaundiced. This case also weighed the least. The percentage liver-body weight, however, was the greatest. Since the immature cells



were present in the same diffuse arrangement and quantity in this case (as in cases III and IV) one may speculate that anemia and jaundice are due to excessive destruction of red blood cells and not to obstruction or compression of the bile capillaries. If this hypothesis is true, the anemia is primarily due to destruction, and the persistence of blood forming centers is a response of the hematopoietic system to the anemic condition. It is noted that dilatation of the bile capillaries (so constant in obstructive types of jaundice) was not present except in case I.

The enlarged hearts may be added proof that an extreme anemic state exists. It will be noted that the percentage heart-body weight is greatest in case II. This is not conclusive evidence of a profound anemia, but in the absence of ante mortem clinical data, it may be argued that at least as great an anemia existed in case II as in cases I, III, and IV.

In this case (II), the liver function may have been proportionally great enough to prevent excess bilirubin in the blood stream and subsequent icterus. Conversely, the liver function may have been inadequate in cases I, III, and IV.

It is also interesting to note that cases III and IV corresponded more closely with case I as regards proportional liver-body weight whereas the actual liver weight and hematopoietic arrangement of cells more closely resembled case II.

TABLE I

Review of Cases with Important Findings

Case	Fetal age and birth weights	Post-natal age	Unusual Weights		
			Liver (normal 78 gms.)	Spleen (normal 8 gms.)	Heart (normal 17 gms.)
I	Full term 3345 gms.	72 hours	145 gms. .043% of body	30 gms.	28 gms. (.0083)% of body
II	Near term 2720 gms.	2 hours	195 gms. .071% of body	34 gms.	35 gms. (.0129)% of body
III	Near term 3345 gms.	10 hours	200 gms. .059% of body	41 gms.	30 gms. (.0089)% of body
IV	Full term 3770 gms.	20 hours	210 gms. .055% of body	40 gms.	40 gms. (.0106)% of body

## SUMMARY AND CONCLUSIONS

1. Four cases of erythroblastosis fetalis have been reviewed and their pathological findings noted.

2. The persistence of blood-forming centers and large numbers of immature cells may be the response of the hematopoietic system to the marked anemia. The icterus is more likely due to destruction of red blood cells than to obstruction or compression of bile capillaries.

3. It is hoped that future antemortem clinical and hematological data may be accumulated by prompt recognition of the condition and the etiology and correct treatment thereby be determined.

## ABSTRACT

## MOUSE MAY BE CARRIER OF DISEASE

The common gray house mouse, *Mus musculus*, has now been incriminated as carrier of the virus of a central nervous system disease from which man is probably infected.

The active virus of the disease, lymphocytic choriomeningitis, has been isolated in three of five mice trapped in two homes in Washington, D. C., wherein proved cases of choriomeningitis appeared.

"The failure to find the infection in 21 mice trapped in eight homes and buildings wherein human cases had not occurred," said Dr. Charles Armstrong, Senior Surgeon, United States Public Health Service (*Public Health Reports*, April 28, 1939), "indicated that the association between the human cases and the infected mice is more than a coincidence."

It is believed that the mice constituted the source of the human infection since in each instance the human case was ill in the home for only four days before being removed to the hospital, and it would appear rather remarkable in both cases to have infected the mice of their respective abodes. On the other hand, if the disease was primary in the mice, the occurrence of the infected rodents in association with the cases is explained.

The housewives in both households apparently suffered infection while one mate escaped and the only evidence of infection in the others was a moderate degree of immunity as judged by serum-virus neutralization test. These findings also suggest an exposure to infection in the home, rather than a human-contact infection.

Two other factors likewise point to mice as the carriers: first, the capture of a less than half-grown infected mouse in the home 87 days after the patient in case two had been removed from the house, indicated the existence of an active infection in the mice independent of the presence of a recognized human case; and, second, the presence, in the home of case one, of a person who possessed strongly developed antibodies at a time when the patient's immunity was but partially developed, suggests that the case did not constitute the initial introduction of the virus into the household.

The reported findings, concludes Dr. Armstrong, suggest that gray mice constitute a reservoir of choriomeningitis infection from which human cases may be contracted. Methods by which the effective exposure may be accomplished are being investigated.

**Background:** Virus-caused lymphocytic choriomeningitis, an infection of the central nervous system, is characterized by acute onset, headache, nausea or vomiting, stiff neck, and a moderate rising fever. With few exceptions, the spinal fluid contains predominately, if not entirely, lymphocytes.

Unlike tuberculous meningitis, which is almost always fatal, and poliomyelitis or encephalitis, diseases which it may resemble in their early stages, choriomeningitis in animals shows slight evidence of nerve cell involvement, while the covering of the brain and the blood vessels of the interior of the brain are markedly affected, and recovery is usually complete in from ten days to two weeks without residual paralysis or other neural complications. It usually runs in a benign, self-limited course, and there is no specific treatment.

The virus, first isolated at the National Institute of Health in 1934, has since then been recovered in several localities in the United States, in England, France, Japan, and there is evidence pointing to its presence in both Africa and Ireland. Monkeys, mice and guinea pigs can be infected. Recovery of the virus from the acute case and the demonstration of the absence of immunity in the blood of a case with its presence after recovery, establishes the diagnosis of the ailment.

## ROENTGEN THERAPY IN INFLAMMATORY DISEASE\*

JAMES N. COLLINS, M. D.

Indianapolis

During the years since its discovery in 1895, roentgen therapy has been used in a wide variety of diseased conditions. In some it has been found to be the method of choice and in others to be a very helpful adjunct to medical and surgical procedures. During the past few years, this form of therapy has become widely accepted by physicians in the treatment of malignancy with and without surgical assistance.

So much has been written about the treatment of malignancy by this method that the medical profession in general has come to associate it largely with cancer. If irradiation is mentioned it is likely to be thought of in terms of unpleasant reactions and long continued and expensive treatment for the patient, such as must necessarily follow with any form of therapy in malignant disease.

It is our belief that radiologists, in their zeal to cure cancer, have said too little about inflammatory disease. While this form of therapy is almost as old in application as x-ray itself and has been proven beyond all doubt to be the one best single method of treatment in many infections, it is rarely mentioned in the literature, outside the radiological journals, and even the modern textbooks have rarely found a place for it.

Since it is well known that the x-ray has little or no bactericidal effect, the question is naturally asked, to what are the results obtained in acute infections due? Unfortunately this has not been answered. The theory most generally accepted is well expressed by Desjardins.<sup>1</sup> "The rate of resolution of acute inflammatory lesions after irradiation corresponds to the rate at which normal leukocytes, notably the lymphocytes and polymorphonuclear cells, are known to be influenced by exposure to roentgen rays. Moreover, the fact that a single small dose usually suffices to induce resolution of acute inflammation also suggests that the main factor in the action of the rays on such lesions consists in destruction of infiltrating leukocytes. Variation in the degree of leukocytic infiltration in different infections may well account for differences in the effectiveness of radiation at different stages. On the whole, it seems most likely that destruction of infiltrating leukocytes liberates the anti-bodies and other protective substances previously elaborated within the cells and thus makes these substances more readily avail-

able for defensive purposes than when they were in the intact cell."

Chronic inflammations of different kinds are also amenable to x-ray therapy, however, only with larger and often repeated doses. Again the response is in proportion to the amount of leukocytic infiltration. Depending on their character and on the etiologic factors which produce them, such lesions, in addition to leukocytic infiltration, are characterized by connective tissue, proliferation and caseous or calcareous degeneration. The latter two are not influenced by irradiation and connective tissue is comparatively resistant. It is, therefore, easy to understand the slower results obtained with this form of treatment in the more chronic inflammations. Poor results in irradiation of infections of any type is, in many instances, due to small amounts of leukocytic infiltration.

Among the more common infections, none is seen so often as furunculosis or, as expressed by the laity, boils. On most parts of the body, this type of infection is not dangerous though it may be very painful and result in loss of time. If seen early, a furuncle may be aborted by a single small x-ray treatment, that is twenty-five to fifty per cent of an erythema dose. In the later stages, pain will be relieved, after a short exacerbation, and resolution hastened. Here, as in other acute infections, the small dosage required does not interfere in the least with other treatment. It is of most advantage in the early stages when surgery and other therapy is of least benefit.

Furuncles, or other infections around the mouth and nose, are always to be handled with care because of their close connection with the structures of the brain. Pulling the hair inside the nares is a common source of infection and a dangerous one. The less done in this group of infections the better. We have had the opportunity to irradiate a large number of these and in every case good results have been rapidly obtained. While it is to be admitted that the same might have occurred without this therapy, it most certainly would not have been so rapid and in the meantime serious complications could have taken place.

Erysipelas is another and more serious infection in which irradiation with x-ray is almost a specific so long as the lesion is local. Our experience in this condition is somewhat limited. We take the liberty of quoting from Dr. F. M. Hodges.<sup>2</sup> According to Hodges, streptococci localize in the spaces between the connective tissue and in the

\* Read before the Indianapolis Medical Society November 8, 1938.

<sup>1</sup> Desjardins, A. U.: The action of Roentgen Rays or Radium on Inflammatory Processes. *Radiology* 1937, 29, 436-444.

<sup>2</sup> Hodges, F. M.: Roentgen Therapy of Certain Infections. *Amer. Jour. of Roent. and Radium Therapy*, 1936, 35, 145-154.



lymph vessels, chiefly in the most superficial layers of the corium. They produce, without suppuration, a cellular inflammation of the skin and subcutaneous tissues, usually lasting from eight to fourteen days. Small early lesions usually disappear within twenty-four hours. Large infected areas show early improvement and usually clear up within a few days. If the infection points, surgery hastens healing and the watery discharge rapidly ceases. Only small dosage is required and should cover normal areas surrounding the infection.

Carbuncles may be considered as "multiple furuncle" and treated in much the same way. If seen in the late stage, surgery will be almost certainly necessary but here again irradiation may shorten the course of the disease and lessen the pain.

Parotitis is a not uncommon surgical complication, especially in surgery of the colon and rectum. The mortality rate is high. Rankin and Palmer<sup>3</sup> reported twenty cases of post-operative parotitis following operation on the colon, treated by radiation, with suppuration in only two. Only two deaths occurred which could be attributed to the parotid disease. The usual mortality rate, according to these authors, ranges from thirty-five to sixty per cent.

Space does not allow a full discussion of all the acute infections. What has been said will apply, in a general way at least, to the whole group. We should mention briefly that class of acute or subacute inflammations seen so often by those engaged in industrial surgery. A great deal of time is lost by these unfortunate patients from infected wounds, usually on the hands. We have seen and treated a number of men with fungous disease complicated by secondary infection. Proper irradiation will often hasten healing and thus be an aid in getting these patients back to work, a benefit to employe, employer, and physician.

During recent years, there have been a number of reports on roentgen therapy in the treatment of bursitis, especially of the sub-acromial bursa. We have had the opportunity of treating several such infections with success in almost every instance. Four recent, very acute, painful shoulders have been relieved after the first treatment and within twenty-four hours, the relief being preceded by an exacerbation of the pain. Results in the more chronic cases have been good though not spectacular. Follow-up films will often show a disappearance of the calcification when such has been present.

An interesting and not often discussed form of infection is that which follows a human bite. The injury is usually minor and the physician is likely not to know the cause, since the patient is re-

luctant to admit how it was obtained. Under the usual management, patients with this type of infection may be incapacitated for weeks or even months. Permanent damage to joints, loss of parts and even death too often occur. Smith and Manges<sup>4</sup> report nine cases treated by irradiation early and before joint involvement had occurred. All their patients recovered without unpleasant sequelae and in much less than the average time. They state that chronicity is not a contra-indication and that this form of therapy does not interfere with surgical or other indicated measures.

Roentgen therapy is a very helpful adjunct to other measures in infections in and around the eye, when there is a lymphocytic infiltration. This is especially true in trachoma. A dose of from fifty to eighty per cent of an erythema can be given with safety. Here again the best results are obtained in the early stages before connective tissue has formed.

The results in the treatment of tuberculous processes are slow. We refer particularly to tuberculous adenitis. In this condition, the therapy must be repeated every two or three weeks until from six to twelve treatments have been given. It may be necessary to drain the gland and this is best done by a simple needle suction rather than by more extensive surgery. Unless the entire gland can be removed, surgery is not a satisfactory method of treatment, since sinuses occur which will not heal without some form of irradiation. If seen early, suppuration can usually be prevented. Irradiation of tuberculous joints has not, in our experience, proven successful and we have not had an opportunity to treat peritonitis caused by this bacillus. Roentgen therapy is recommended in tuberculosis of the cornea and iris and we have seen some very satisfactory results in its use here.

Most warts are caused by low grade infections and will, therefore, respond readily to roentgen therapy. The large majority of these may be successfully treated by a number of methods, some of which are simpler than the x-ray. There is one type, the plantar wart, so-called because it occurs on or near the plantar surface of the foot, in which we believe this to be the method of choice. The bacteria enter through a break in the skin and a low grade infection is set up which in time results in various amounts of callous formation. We have seen from one to twenty occurring on one foot. They are often very painful on pressure, so much so that the weight cannot be borne on this part. They may go unrecognized and untreated for years, the longest in our series was twenty-five years. This patient's occupation made it necessary for him to be on his feet during the working hours. He was relieved soon after the

<sup>3</sup> Rankin, F. W., and Palmer, B. M.: Post-operative Parotiditis: Treatment without and with Radium. *Ann. Surg.* 1930, 92, 1007-1013.

<sup>4</sup> Smith, R. Manges, and Manges, Willis F.: Roentgen Treatment of Infection from Human Bite. *Amer. Jour. Roentgenol. and Rad. Therapy*, 1937, 38, 5, 720-725.

therapy was given. More than eighty per cent of these infections can be cured by irradiation, in fact almost one hundred per cent, if the treatment is given before acids have been applied or some form of surgery used. Our failures have mostly occurred in the last named group of cases.

In blastomycosis and other severe fungous infections, irradiation has much to offer and in some of them, at least, is the treatment of choice. Even the severe cases will usually clear after a few moderately heavy doses. Iodine therapy is not interfered with.

Actinomycosis, occurring around the mouth, neck or other more superficial structures, should have the benefit of x-ray therapy along with iodine and such surgical measures as are indicated. We have seen no help by this treatment when the lung is involved, nor are the reports from others favorable. Our experience in actinomycosis arising from the intestine is too limited for conclusions to be drawn. The infection here is usually mistaken for acute appendicitis until after surgery. Irradiation should be given a trial since other forms of therapy are not satisfactory and there is some basis for its application.

Since at least some forms of arthritis are of infectious origin it is not out of place to discuss its treatment along with other inflammatory disease. X-ray therapy over rheumatic joints is not new and is by no means original with us. Its mention can be found in the roentgen literature almost from the discovery of x-ray. Roentgenologists in general have not, nor are they likely to become enthusiastic over the results. The very fact that so many forms of treatment are used in arthritis tends to show that none is universally successful. We, therefore, feel free, and at the risk of criticism, to discuss some recent experiences and results in the use of the x-ray therapy over these painful joints.

Our interest in this form of therapy was first excited by the work of Kohlmeier<sup>5</sup> read before the committee on arthritis of the Royal English College of Physicians.

This article was called to our attention by some medical friends and we were asked to try it out on some of their patients. This we did and were surprised at the relief obtained in some cases. Aside from bursitis, previously discussed, all our treatments have been given within the year. Only a very few of the joints could be classed as acute, in these the results have been encouraging in that the pain has been relieved and the duration of the disease shortened. In this type of case, irradiation probably acts much as in other acute infections.

By far the greater number of our patients had chronic hypertrophic arthritis or hypertrophic

changes in the spine, shoulders and knees. Our best results have been obtained in those cases of low back pain which are so common and in which any form of therapy is unsatisfactory. In some of these, extensive changes were demonstrated in the films taken, while others appeared entirely normal. Most of the patients had had the usual treatment without relief and were willing to try x-ray therapy though all were told that it might not help.

The changes present as demonstrated on the films have not seemed to influence the results. One of our first patients was a heavy woman over sixty years of age, showing extensive hypertrophic changes in the lumbar spine and with a definite spondylolisthesis of the fifth vertebra. She had had good medical and orthopedic care including braces. Complete relief of pain was obtained, lasting for two months when there was a recurrence. Further treatment again gave relief and there has been no pain for three months. At the other extreme, some of the patients with normal appearing joints have obtained little or no relief of pain.

We realize that most hypertrophic changes are not now regarded as infectious in origin. There are, however, secondary changes around the nerve roots, lymphocytic infiltration, muscle spasm, etc., and it is the effect on these that is believed to give the results obtained by radiation. Certainly, there is no change to be demonstrated in the bone and joint structure following this form of therapy. Relief from the severe pain in herpes, in certain cases of pruritis and in other conditions, caused by inflammation around the nerve roots, can usually be obtained by irradiation over the involved portion of the spine. This, in theory at least, best explains the results obtained in the arthritic back. The method is entirely safe except in younger individuals where care must be taken if the painful joint is in the region of the reproductive organs.

#### CONCLUSIONS

(1) A method is discussed for treatment of inflammatory disease which has proven over a long period of time to be of definite benefit.

(2) It is the duty of the radiologist at all times to co-operate with the referring physician. This is especially true in the acute inflammations where changes may occur within a few hours. Radiation does not contra-indicate the usual methods of treatment for these diseases.

(3) Our report on radiation therapy in arthritis should be considered as preliminary. No attempt is made to show results in percentage. We realize that there are many failures but so are there in the other methods of treatment. Irradiation therapy is comparatively simple, is harmless, and if even a small percentage of cases can be helped, is definitely worth while.

<sup>5</sup> Kohlmeier, Gunnar: Reports on Chronic Rheumatic diseases. The Macmillan Company, New York, 1937. No. 3, 17-29.



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### INDIANA STATE MEDICAL ASSOCIATION

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JUNE, 1939

## Editorials

### THE GAY NINETIES

If the typical Hoosier doctor of the "Gay Nineties" could return to practice today, he would find a changed medical world. No longer could he depend upon his August typhoid to buy his winter coal. He would find his old enemy, malaria, completely under control and safely tucked away in the therapeutic bag, there being used under carefully controlled conditions to lessen the ravages of syphilis. He would see very few children choke to death with black diphtheria, and very few parents fearing that dreaded second summer for their babies. Only on rare occasions would he see amebic dysentery raise its ugly head.

A survey of our past illustrates how modern scientific medicine has been able to adapt itself to changing conditions. In the forty years that separate us from the last century, great progress has been made in the control of infectious and parasitic diseases. This has been accomplished by a combination of public enterprise and private initiative on the part of the medical profession. Occasional outbreaks of the diseases which ravished our country in the past show that our victory is not complete as yet and eternal vigilance is needed.

Taking stock with our past gives us greater insight into our present problems and greater ability to cope with them. Peering into the future, we can see a more rapid control of preventable diseases by application of present day knowledge. There will be virtual elimination of many of our present day medical problems which loom so large today. Then medicine can concentrate more on the problems of the inner man, ameliorate the ills of

an aging population, and make man's life more complete. The private practitioner has always been willing to sacrifice his economic well being in the conquest of disease for the public good, and we can expect the doctor of the future to carry on the glorious heritage of the past.

### BLIND ASSISTANCE DATA

In October of last year THE JOURNAL published the first authentic picture of the blind assistance program for Indiana, under the title "The State and the Blind." Much interest was manifested in this report, for even the medical profession was not aware of the rather large number of blind residents of our state.

*The Quarterly Survey* of the Department of Public Welfare, just recently published, gives additional information of much value, discussing the causes of blindness among the 2,552 persons now receiving financial aid because of their misfortune. While it generally is regarded that the infectious diseases play a very important role in the causes of blindness, it is rather surprising to note that some thirty percent of those registered with the Department come under this class. More surprising is the fact that trachoma is the most common offender, with syphilis the second most common. Two hundred and forty-five persons, residents of Indiana, have become blinded (to the extent that they are eligible for pensions) from trachoma, while 192 are on the rolls because of syphilis. Trachoma was long ago supposed to be well under control in Indiana but it persists in our state.

By far the greater percent of these cases are found in that part of southern Indiana lying within the "trachoma belt," which is composed of certain sections of Illinois, Kentucky, and Tennessee. A map accompanying the report shows some interesting figures: 29 counties in the state have no trachoma-pensioned residents, most of this group being in the upper part of the state; 39 counties have from one to three such cases, while the remaining 24 counties have four or more. Allen county is the only northern county in the last class, with 5 cases. One might reason that this probably is due to a large foreign population, but Lake county, with almost fifty percent of so-called foreign population, shows but one case.

Turning to the map showing the residence of those on the blind assistance register because of syphilis, the picture undergoes a radical change. Here we find the cases located in the more populous centers, Marion county leading with 51 cases; 32 counties have no such cases and 47 counties have but one to three. Thirteen counties of the state harbor the most of these cases, Lake county being second with 13 cases. The total number of such cases is 192.

With only these two diseases, there is a total of blind relief cases amounting to 437, cases that receive monthly checks from the State for dis-

eases that are wholly controllable. Trachoma would seem to offer the greater problem of the two, chiefly because our population has not been educated to the extreme dangers of this infection, as is the case with syphilis. Most folk regard "granulated eyelids" as an ephemeral sort of thing, probably due to a cold or what-not, and a trifling infection. Much of this is due to the careless usage of the term by physicians, men who are prone to say "Oh, you have a little granulation of the eyelids," and proceed to dispense the well-known yellow oxide. "Granulated eyelids" is a term that should be used on only one occasion, when the patient has a frank trachoma, and on that occasion the physician will confer a very great favor on his patient if he will take plenty of time to explain just what the infection is, what it may lead to, and the extreme necessity for prolonged treatment. Trachoma, like syphilis, is curable, but the treatment is of long duration and close supervision.

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## FLOWERS FOR THE LIVING

It is usual for us to record the achievements of our fellowmen in obituary notices, but when one who is living is accorded the honor of having his accomplishments recognized, it becomes news and is so recorded in the public press. It is with much satisfaction that we read the newspaper accounts of a dinner given in honor of Alois Bachman Graham on the occasion of his retirement from the faculty of the Indiana University School of Medicine where for some forty years he has served as the head of the Department of Gastro-Enterology. *THE JOURNAL* feels that it is a privilege to join with his many friends in supplementing the honors thus bestowed.

Doctor Graham came to Indianapolis from Madison, Indiana, at a time when Indianapolis was a flourishing center of Midwest activity and Madison was the home of the Laniers, the Cravenses, the Friedleys, and the Grahams along with a long list of other family names notable in the history of the development of the Northwest Territory. In his boyhood, Dr. Graham's home town was the center of the pork packing industry of the country. Madison supplied hundreds of the boats that plied the Ohio and its tributaries. Its woolen mills were among the best in the nation. The culture of the entire territory had its center in Madison. Down the river and situated atop the hills was the site of Hanover College from which Dr. Graham later graduated and then he went to Indianapolis where he entered the old Indiana Medical College from which he graduated in 1894. A few years later he went to Vienna for a prolonged season with Ewald and when he returned to Indianapolis he became associated with the late Dr. George J. Cook, then head of the gastro-enterology department in the medical school, to which chair Dr. Graham later succeeded.

Now again do we record the retirement of one of our "oldsters" from active participation in medical school affairs. Our emeritus professor list is growing too long, and too rapidly. Through the years we have known Dr. Graham as a physician, as a teacher, and as a man, and it is with pride that we add our bit to the many testimonials that have been accorded him during the past few weeks, and we sincerely wish for him in his semi-retirement that bit of contentment that awaits the man who has done his work well. We shall remember him for what he is and for what he has done for our profession as well as for the example he has set for those whom he taught. As president of his local medical society and of the Indiana State Medical Association, and during the time he served his section of the American Medical Association, his official acts are matters of record of which any man might well be proud. The innate modesty of the man is quaintly revealed in his response at the testimonial dinner when he said, "Whatever I have accomplished, whatever minor role I have played in the progress of medicine, is due to those who helped me."

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## CONSERVATION—A LOST ART?

In the May number of *THE JOURNAL* there was published a special article describing our Hoosier State as an ideal vacation spot. We pointed out the efforts of the Department of Conservation to restore many of our natural advantages and resources, particularly those having to do with woods, waters, and game. The Department has done and is doing a competent job, yet it will require several decades ere Indiana is again the natural site of forests, decades before our waters will be restored to some semblance of their one-time purity. We have an abiding faith, however, that these things will come to pass and that future generations will enjoy these natural advantages that were ours in the days of our childhood.

Conservation is being preached and practised not only in Indiana but in most other states as well. An organization known as the National Wildlife Federation is seeing to it that the facts in the matter are given the widest publicity. Most Indiana physicians recently received from this organization a page of poster stamps reproduced from paintings by the most famous American portrayers of wild animal and bird life. A generous per cent of those receiving the stamps made the small contribution asked for, and every penny of the money is to be devoted to a furtherance of this work. The real "man behind the gun" in all this is Jay N. Darling, better known to lovers of cartoons as "Ding." Somehow or other "Ding" became the chief of the U. S. Bureau of the Biological Survey for a little while, during which time he made things hum; in fact, the humming became so pronounced that it was evident that the naming of "Ding" Darling to the post was not



just another appointment. After he left the post, the Wildlife Federation became a fixture, and today it is one of the organizations to which official Washington shows more than the usual deference. Darling recently published a little article which should be read by every American—*Natural Resources Can Be Restored and Sustained!* In this brief article there are cryptic sentences that should be repeated from the housetops, as for example: "It is not a case of 'wake up and live,' but wake up or you *won't* live!" For, as he says, "Did you know that this continent and its sustaining resources on which we live is not inexhaustible? Did you know that each year we use up *twenty-five million* acres of our good farm land and retire it from cultivation as being no longer productive? Did you know that there is not a major river or lake on this continent which has not lost its food-producing qualities; that the tremendous runs of fish which formerly filled these American waters are approaching exhaustion?"

And we may ask what has become of the sturgeon that literally filled the waters of the Mississippi and other large rivers of the country? Today there is a closed season on this delectable fish! Only a day or two ago we read a news story to the effect that something would have to be done to restore the perch supply in Lake Michigan. Twenty and thirty years ago we could catch a family supply of perch from any of the numerous piers in our lake shore; today there are none caught there. Eighty-five per cent of the natural forests of the country are gone. To say nothing of the future lumber problem, this wholesale destruction of our forests is directly responsible for our present annual flood situation. Our "dust bowls" are man made through taking too generously from Mother Nature and neglecting to replace what has been taken. As "Ding" clearly puts it, "Our waters can be restored, our forests replanted, our wild life replenished, and our rivers and lakes can be made again to furnish their rich quota of life's necessities." Indiana doctors are interested in conservation; they are just as much concerned with the restoration of our natural advantages as any other group of Hoosiers and when called upon will do their part toward seeing that Indiana is right up in the front rank of states seeking to assist Dame Nature in getting back most of the things we so rudely have taken from her.

DELINQUENT MEMBERS WILL RECEIVE  
NO JOURNAL AFTER THIS ISSUE.  
PAY YOUR DUES NOW!

## Editorial Notes

It might be well for those planning a trip to northern Indiana or to Chicago in the next few months to remember that Chicago, as well as practically all cities in northern Indiana, operate on "daylight savings" time, one hour faster than Central Standard time. This is the twenty-first year in which this "added hour of daylight" has been in effect in this area and most local residents have come to like it. This will continue until Sunday, September 30th.

The scientific exhibit at the St. Louis convention of the A.M.A. was generally pronounced as the best ever presented at any meeting. The St. Louis auditorium is particularly well adapted to such an exhibit; the spaces were not at all crowded, were ample as to size, enabling the exhibitors to provide seats for those who wished to make a prolonged study of what was before them. Again we call attention to the fact that an Indiana doctor, the late Frank B. Wynn of Indianapolis, is the father of the exhibit plan.

October 10th, the opening date of the annual convention at Fort Wayne is not so far off and it is not too early to begin planning to attend this very important event. Judging from the activities of the various local committees, this convention should be an all time "tops." We would urge that those planning to attend make their hotel reservations early. The last-minute scramble for desirable accommodations is not so good. You know you are going to be there, so why not make your reservations well in advance?

The Wisconsin State Medical society offered its members in three sections of the state a well-balanced postgraduate study program, in April. We learn that the attendance in each of the three cities was unusually good and that the plan was pronounced a success. On April 18th the program was given in Appleton, the next day in Madison and on the following day in Eau Claire, the same program being repeated in each place. Five out-state speakers were on the program together with several local members. Such a plan could well be carried out in our own state with profit.

The first quarter of 1939 shows a decrease in traffic deaths of some twelve per cent, a most encouraging report. For 1938, the reported deaths from these accidents reached the astounding figure of 32,000 which was the lowest since 1928.

At the same time, it should be remembered that for this first quarter the death score from traffic accidents, over the entire country, was 6,150; thus it can be seen that even with the reported decrease there remains much to be done ere it can be considered that this great nation-wide problem is under reasonable control.

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During 1938 there were 6,252 physicians added to the medical roster of the United States. New York led the procession with 1,204 new physicians locating within her borders, while South Dakota "tailed" the group with an addition of but two physicians. Indiana placed a little more than a hundred new doctors on her list. It is worthy of note that in all the State Board examinations during the year there were 872 failures, indicating that these examinations are not of the perfunctory sort. However, the percentage of failures in 1938 was but 11.7, while in 1908 it reached the high point of 21.7.

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Many words of warning are appearing in the medical press anent the indiscriminate use of sulfapyridine, and they are most timely. Research groups proceed to test this and other new remedies, and physicians are content to accept their recommendations. The article by Drs. Kohlstaedt and Page in the May issue of *THE JOURNAL* makes it clear that while sulfapyridine is proving to be a remedy for certain types of pneumonia, its use should be carefully guarded. The same is true of many other new products; probably they will prove to be valuable, but it will be well to await the opinions of those who make extensive studies before recommendations are made.

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Dr. James B. Herrick, Chicago, was awarded the distinguished service medal of the American Medical Association for 1939 by the House of Delegates at the St. Louis convention. This, the highest honor that can be conferred by American medicine, is well merited in the case of Dr. Herrick who has been active in professional affairs for more than a half century. For many years he engaged in an intensive study of heart diseases and his original contributions on the subject of coronary disease has established a world-wide reputation. *THE JOURNAL* joins with American medicine in congratulating Dr. Herrick upon this distinguished honor.

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The "Middletown Modernizes Medicine" exhibit at the St. Louis convention of the A.M.A. attracted an unusual number of visitors, many of whom took the time to ask all about the Indiana Plan as it is now being carried out by the Delaware-Blackford

County Medical Society and the Muncie Academy of Medicine. The exhibit was exceptionally well laid out, and one could in a moment or two get the general idea. It was well manned, with two or three local members constantly on hand to answer questions, and they were well informed as to the operation of the plan. The two societies mentioned are to be given the special thanks of Indiana physicians for having presented the "Indiana Plan" so graphically.

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Waltonians who are wont to cast a line into the Wabash near Terre Haute are advised to preserve their equanimity if they happen to hook a full-grown alligator. According to *Outdoor Indiana*, two sizable specimens of the reptile have been taken from these waters at a point two miles below Terre Haute. One was six feet two inches long and the other was five feet four inches. If you happen to hook onto one of these dudes, do not become panicky and think you are "seeing things"; land him, and you will be the local hero for many days to come. The picture of the two specimens captured appears in the May number of *Outdoor Indiana*, the official publication of the Indiana Department of Conservation.

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Heart disease continues to be the leading cause of death among physicians, according to an editorial in *The Journal of the American Medical Association*. Arteriosclerosis was the second highest cause, while cerebral hemorrhage ranked third. Pneumonia and cancer followed, in order. The total number of recorded deaths among physicians was 3,768. Thus it is noted that the chief causes of deaths among physicians are those diseases that are incident to a more than ordinarily busy life. Certainly this affords proof that the unusual cares incident to the practise of medicine have much to do with the frequency of what has come to be known as the "doctor's disease," the coronary involvements.

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A concrete example of the progress of medicine in recent years is shown in the twenty-seventh annual typhoid fever report, as printed in *The Journal of the American Medical Association* for May thirteenth. In 1910, the death rate per 100,000 population was 20.54; in 1939 the rate was 0.82. Typhoid fever, in the memory of many of us a veritable scourge expected annually in many communities, is now a comparatively rare disease. In fact, we had to do no little scouting to get the material on that subject for this special number of *THE JOURNAL*. However, we must continue to preach the necessity of vaccination against this disease and to repeat the warnings to vacationists regarding the indiscriminate use of drinking water.



Some time ago a lay publication printed an article on "contact lenses," since which time ophthalmologists have had many questions to answer. The May number of *Hygeia* comes out with a very well written discussion of these lenses and a "review" magazine has made the subject a major one in a recent issue. Thus the way is open for a new list of questions from patients who find it necessary to use glasses. Contact lenses, in the cases for which they originally were intended, are valuable adjuncts. They fill a definite need and are a boon to the wearer. However, for the "garden run" of wearers of glasses, they are not to be considered. We have found that a statement as to the original cost of these dainty little thingum-a-bobs usually causes the questioner to lose all interest in the subject.

*Hygeia* for June carries a timely article on hair growth, one that might be read with profit by all who note with varying degrees of dismay that their hair is thinning out. The article makes it quite clear that, despite the radio and newspaper advertising to the contrary, little can be done to restore hair. As was stated in the article, "belief that scalp can be cultivated like land causes useless expenditures of millions annually." Certain types of alopecia, of course, can be cured and in many of these cases the hair returns, but for the general run of baldness, little can be done. However, the public, including doctors, will continue to buy this or that hair tonic; the radio spielers will continue to detail their marvelous claims as to the efficacy of the product which continues to afford them a regular pay check, and heads will continue to gleam in all the glory of baldness!

The following note was given by an Indiana chiropractor to a student who later found it necessary to consult a physician:

"To Whom it May Concern: Please excuse the bearer from Physical Education for a couple of weeks, due to a pronounced Malaise, following a Respiratory incoordination."

An editorial in *The Journal of the American Medical Association* for April twenty-ninth asks a very important and pertinent question: "What is osteopathy?" Further, the writer wants to know if these schools are teaching medicine, since efforts are being made to place osteopathic graduates on the same plane as medical graduates. Both questions seem very fair, especially so since osteopathic schools have consistently refused to permit the Council on Medical Education and Hospitals to inspect them. All medical schools of the country are regularly inspected by the Council and suggestions for improvements are carefully followed up. It seems hardly fair that osteopathic schools should be permitted to evade

these annual inspections and requirements to bring their curricula up to a common standard. It is said that a Kansas legislative committee, having before it a measure concerning such matters, made a visit to an osteopathic school and that their report was not of the most favorable sort. It might be a good idea for our Indiana Board of Medical Registration to check up on the osteopathic schools whose graduates appear from time to time for Indiana registration.

Since this issue of *THE JOURNAL* has for its special topic "Insect-Borne Diseases," it is appropriate for us to note, once more, that an Indiana physician, Dr. Lyman T. Rawles of Fort Wayne, was the discoverer of the cause of grain itch. Dr. Rawles discovered the *ditropenotus aureoviridis* as the cause of grain itch or straw itch while investigating the cause of a dermatitis which seemed to reach epidemic proportions in his community (then Hunteertown, Indiana) in May of 1909. Not until 1936 was Dr. Rawles given full credit for priority in this work; then Dr. Herman E. Kittredge published an article entitled "Priority Among American Physicians in Demonstrating the Cause of Grain Itch. Tardy Credit Therefor Given to Dr. Lyman Talmage Rawles" in *The Journal of the American Medical Association* (107:2109, Dec. 26, 1936).

If an increasing number of papers submitted can be considered a criterion, then *THE JOURNAL* is fast becoming a popular magazine. Well do we recall, back in the early days when the present *JOURNAL* management was installed, that the question of having sufficient scientific articles for more than a few months ahead was a very serious problem. Occasionally it was necessary to write to members in strategic positions over the state and ask them to be on the lookout for papers of more than average interest. Today, *THE JOURNAL* has a number of contributors that would do credit to many journals of the national variety. In fact, more good material is proffered than can be used. As a matter of course, we must take care of Association members first, and the guest speakers at our annual conventions. Then there are the papers read before component societies that have appealed to the group before which they were read; it is but natural that these should be submitted, and they generally are used. There is an occasional paper of more than common merit submitted from out of the state, and sometimes such are used. Rather often we are embarrassed by the rule of the Editorial Board to the effect that no member of the Association shall have more than one paper per year in *THE JOURNAL*, but such a rule is necessary even though at times it would seem to work a hardship. On the whole, the material submitted is well worth publication and we believe that it makes a well-balanced publication.

## 1939 SESSION OF THE AMERICAN MEDICAL ASSOCIATION

GEORGE R. DILLINGER, M.D.  
French Lick

At the session in St. Louis, in the House of Delegates of the American Medical Association, Indiana was represented by Dr. R. L. Sensenich of South Bend, trustee of the American Medical Association, and the following regularly elected delegates: Dr. F. S. Crockett, Lafayette; Dr. H. G. Hamer, Indianapolis; Dr. Don Cameron, Fort Wayne, and Dr. George Dillinger, French Lick. Dr. Hamer served on the Committee for Executive Session; Drs. Sensenich and Crockett served on the permanent Committee on Legislative Activities, and Dr. Dillinger served on the Credentials Committee.

At the opening session of the House, Dr. James B. Herrick of Chicago was elected to receive the distinguished service medal. The work of Dr. Herrick in the field of heart disease and his original work on coronary thrombosis are well known.

### COUNCIL ON MEDICAL EDUCATION TO BE ENLARGED

The by-laws of the Association were amended so that the Council on Medical Education and Hospitals will be enlarged, and the members will serve for a term of nine years, and will not be eligible for re-election. They will be elected by the House of Delegates from a list of nominees submitted by the Board of Trustees. The by-law becomes effective in 1940.

An amendment to the constitution was offered by the Judicial Council concerning membership in the American Medical Association. This was offered because some local medical societies have as mem-

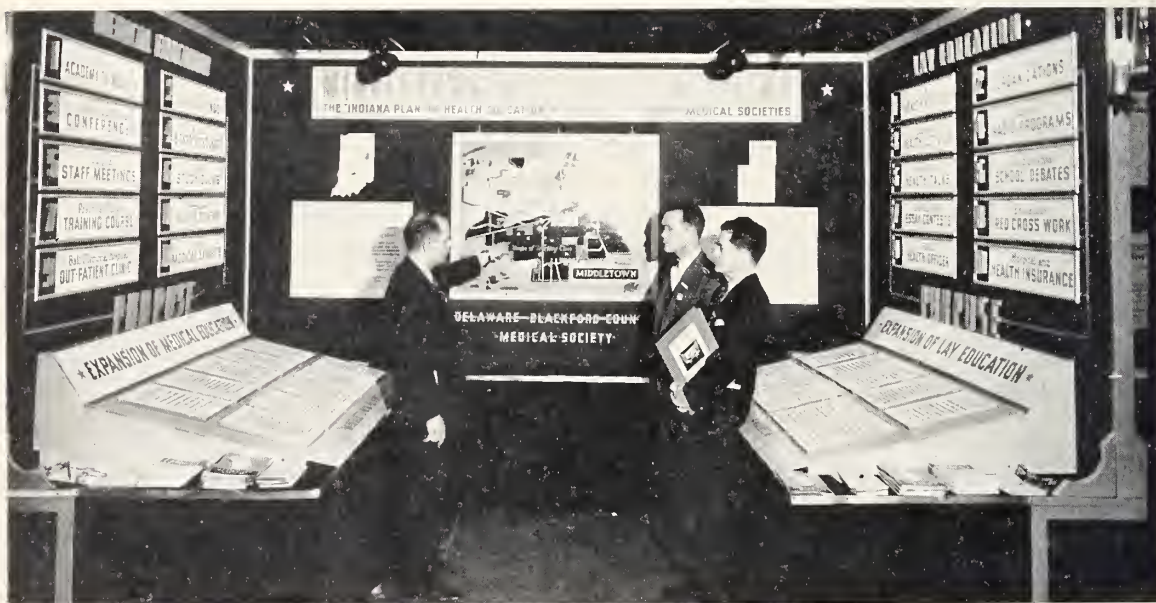
bers osteopaths and other irregular practitioners. The amendment specifies the requirement, "holding the title of Doctor of Medicine or Bachelor of Medicine." This amendment will be considered for final action at the 1940 session.

### FARM SECURITY ADMINISTRATION

In regard to the Farm Security Administration in the field of medical care, it was recommended that there be a better understanding between the state and county medical societies. Agreements made between the county societies and the Farm Security Administration should be subject to the approval of the state association. The House of Delegates upheld in principle the agreements made by the Indiana State Medical Association with the Farm Security Administration.

### THE WAGNER BILL

The most interesting and important matter to come before the House was the discussion of the Wagner Act, or S. 1620, as it is designated on the Senate calendar. This proposed legislation was referred to a special committee. The committee was in almost continuous session for forty-eight hours, conducting open hearings and considering the proposed bill, as well as the resolutions that were introduced in the House relating to the subject. The following twenty-two point summary will give the main points of that committee's report which was adopted by the House without a dissenting vote.



Photograph of "Middletown Modernizes Medicine" exhibit at A.M.A. meeting. Pointing to map is Dr. J. G. Silvers, Muncie, president of the Delaware-Blackford County Medical Society; center is Dr. Donald A. Covatt, Muncie, secretary of the society, and (at right) Dr. Robert D. Turner, Muncie.



### Summary of Special Committee's Report

1. The Wagner Health Bill does not recognize either the spirit or the text of the resolutions adopted by the House of Delegates of the American Medical Association in September 1938.

2. The House of Delegates cannot approve the methods by which the objectives of the National Health Program are to be obtained.

3. The Wagner Health Bill does not safeguard in any way the continued existence of the private practitioners who have always brought to the people the benefits of scientific research and treatment.

4. The Wagner Health Bill does not provide for the use of the thousands of vacant beds now available in hundreds of church and community general hospitals.

5. This Bill proposes to make federal aid for medical care the rule rather than the exception.

6. The Wagner Health Bill does not recognize the need for suitable food, sanitary housing and the improvement of other environmental conditions necessary to the continuous prevention of disease.

7. The Wagner Health Bill insidiously promotes the development of a complete system of tax supported governmental medical care.

8. While the Wagner Health Bill provides compensation for loss of wages during illness, it also proposes to provide complete medical service in addition to such compensation.

9. The Wagner Health Bill provides for supreme federal control: federal agents are given authority to disapprove plans proposed by the individual states.

10. The Wagner Health Bill prescribes no method for determining the nature and extent of the needs for preventive and other medical services for which it proposes allotments of funds.

11. The Wagner Health Bill is inconsistent with the fundamental principles of medical care established by scientific medical experience and is therefore contrary to the best interests of the American people.

12. The fortunate health conditions which prevail in the United States cannot be disassociated from the prevailing standards and methods of medical practice.

13. No other profession and no other group have done more for the improvement of public health, the prevention of disease and the care of the sick than have the medical profession and the American Medical Association.

14. The American Medical Association would fail in its public trust if it neglected to express itself unmistakably and emphatically regarding any threat to the national health and well being. It must, therefore, speaking with professional competence, oppose the Wagner Health Bill.

15. The House of Delegates would urge the development of a mechanism for meeting the needs for expansion of preventive medical services, extension of medical care for the indigent and the medically indigent, with local determination of

needs and local control of administration, within the philosophy of the American form of government and without damage to the quality of medical service.

16. The fundamental question is how and when a state should be given financial aid by the Federal government out of the resources of the states as a whole, pooled in the Federal Treasury.

17. The bizarre thinking which evolved the system of Federal subsidies—sometimes called "grants-in-aid"—is used to induce states to carry on activities suggested frequently in the first instance by officers and employees of the Federal government.

18. The use of Federal subsidies to accomplish such Federally determined activities has invariably involved Federal control.

19. Any state in actual need for the prevention of disease, the promotion of health and the care of the sick should be able to obtain such aid in a medical emergency without stimulating every other state to seek and to accept similar aid, and thus to have imposed on it the burden of Federal control.

20. The mechanism by which this end is to be accomplished, whether through a Federal agency to which any state in need of Federal financial assistance can apply, or through a new agency created for this purpose or through responsible officers of existing Federal agencies, must be developed by the Executive and the Congress, who are charged with these duties.

21. Such a method would afford to every state an agency to which it might apply for Federal assistance without involving every other state in the Union or the entire government in the transaction.

22. Such a method would not disturb permanently the American concept of democratic government.

Two physicians from Indiana were elected to Honorary Affiliate membership in the American Medical Association: C. E. Laughlin of Evansville, and P. H. Veach of Staunton.

The following officers of the American Medical Association were elected:

President, Rock Sleyster, M.D., Milwaukee  
(elected 1938)

President-elect, N. B. Van Etten, M.D., New York  
Vice-president, Alphonse McMahon, M.D., St. Louis.

Secretary, Olin West, M.D., Chicago  
Treasurer, H. L. Kretschmer, M.D., Chicago  
Speaker of the House, H. H. Shoulders, M.D., Nashville

Vice-speaker, R. W. Fouts, M.D., Omaha  
Trustees, Roger Lee, M.D., Boston and E. L. Henderson, M.D., Louisville

Atlantic City was selected as the 1942 convention place. The 1940 meeting will be held in New York and the 1941 meeting will be held in Cleveland.

## NOTES FROM THE ST. LOUIS SESSION OF THE AMERICAN MEDICAL ASSOCIATION

With 313 Indiana physicians registered for the ninetieth annual session of the American Medical Association in St. Louis, May 15 to 19, Hoosier doctors were much in evidence among the 7,000 medical men and their families from all over the United States who gathered for the convention. Whether in the sessions of the House of Delegates, in the scientific sessions of the assembly, among the crowds who attended the evening Show Boat performances on the Mississippi River, or at Sportsman's Park where Mize, Medwick, and Pepper Martin and their families from all over the United States who gathered for the convention. Whether in the sessions of the House of Delegates, in the scientific sessions of the assembly, among the crowds who attended the evening Show Boat performances on the Mississippi River, or at Sportsman's Park where Mize, Medwick, and Pepper Martin and other cocky Cardinals are putting on their artistic baseball exhibitions these days, the Hoosiers were always to be found occupying prominent places in the activities and convention doings.

Headed by its two official leaders, Dr. E. M. Van Buskirk of Fort Wayne, president of the Indiana State Medical Association, and Dr. Karl Ruddell of Indianapolis, president-elect, the Indiana group attracted the attention of the entire medical profession of the nation to the "Indiana Plan of Preventive Medicine" which has been approved by the American Medical Association and adopted by the American Legion as the proper approach to the tremendous questions of health education and prevention of disease. By means of an elaborate exhibit, sponsored by the Bureau of Publicity of the Indiana State Medical Association and the Delaware-Blackford County Medical Society, entitled "Middletown Modernizes Medicine," the visiting doctors throughout the country were shown how a typical American community may carry on a program of medical education and activity under the direction of the local medical society which will result in decreased mortality rates in pneumonia, typhoid, diphtheria, smallpox, and other diseases. The exhibit, which was constructed by James F. Glore, medical artist for the Indiana University Medical Center, was in charge of Muncie physicians, Dr. Joseph C. Silvers, president, and Dr. Donald A. Covalt, secretary, of the Delaware-Blackford County Medical Society.

In the House of Delegates, Indiana was represented by Dr. R. L. Sensenich of South Bend, member of the Board of Trustees of the American Medical Association; Dr. Don F. Cameron, Fort Wayne; Dr. F. S. Crockett, Lafayette; Dr. George R. Dillinger, French Lick; Dr. Homer G. Hamer, Indianapolis, and alternates were Dr. Norman Beatty, Indianapolis; Dr. A. M. Mitchell, Terre Haute; Dr. W. F. Kelly, Indianapolis, and Dr. A. S. Giordano, South Bend. Dr. Hamer served as a member of the House Committee on Executive Session, to which were referred many important

medical economic questions. Dr. Dillinger was a member of the Credentials Committee. Dr. Sensenich and Dr. Crockett were members of the Legislative Activities body.

Dr. Charles N. Combs of Terre Haute served as secretary of the Section on Anesthesia, and Dr. F. T. Romberger of Lafayette was a member of the Advisory Committee of the A.M.A. on the anesthesia exhibits. Dr. C. O. McCormick of Indianapolis was a discussant in the Section on Obstetrics and Gynecology, and Dr. Homer Hamer of Indianapolis appeared on the program for the Section on Urology. Dr. Irvine H. Page of Indianapolis spoke before the Section on Pathology and Physiology upon a "Method for Producing Persistent Hypertension by Cellophane." Dr. Frederic W. Taylor of Indianapolis appeared on the program of the General Surgical Section, speaking upon "Arteriosclerotic Gangrene; Relation of the Amputation Stump to Mortality and Morbidity."

Dr. G. W. Batman of Indianapolis and Dr. D. R. Ulmer of Terre Haute were among the fifty physicians throughout the country giving fracture demonstration work.

In addition to the exhibit "Middletown Modernizes Medicine," there were several other Indiana exhibits. One in charge of Dr. Harold M. Trusler and James F. Glore was sponsored by the Indiana University Medical Center and was a display on the treatment of burns and the repair of burn scar deformities. By means of charts, illustrations, and photographs, the important phases in the treatment of major burns and major reconstructive surgical procedures were shown.

Dr. Walter L. Bruetsch and Dr. Max A. Bahr presented a scientific exhibit of the work which they have been doing at Central State Hospital on patients who are suffering from chronic rheumatic brain disease. The physicians estimate that about four per cent of all cases of mental illness are caused by rheumatic brain involvement. In cooperation with the U. S. Public Health Service, and in collaboration with ten leading hospitals, Drs. Bahr and Bruetsch showed, as part of a nation-wide study, the results in 500 cases of general paresis who were treated at the Central State Hospital.

Dr. Raymond C. Beeler of Indianapolis was in St. Louis several days before the regular meeting convened, acting as a member of the National Board of Radiology whose duty it is to examine Board candidates in that specialty. Dr. Herman Baker of Evansville was in St. Louis in consultation with officials of the American Red Cross for which organization Dr. Baker serves as a member of the National Board.



Dr. Raymond Beeler, of Indianapolis, was elected vice-chairman of the Section on Radiology. This gives Indiana two places on the governing bodies for the sections this coming year, with Dr. C. N. Combs, of Terre Haute, serving as secretary of the Section on Anesthesia.

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Last year the A.M.A. Bureau of Medical Economics sent out a request to local county medical societies for their fee schedules. According to the report printed in the House of Delegates handbook, Indiana sent in more answers, in proportion, than came from any other of the larger states. Seventy-one of the eighty-three county societies in Indiana responded.

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Immediately following his election, Dr. Nathan P. Van Etten, of New York, newly chosen president-elect of the A.M.A., received the traditional invitation to be the guest of honor and the dinner speaker at the banquet during the ninetieth annual session of the Indiana State Medical Association to be held in Fort Wayne, October eleventh.

\* \* \*

A real thrill ran through the Indiana delegation when Dr. Rock Sleyster, in his address as president-elect at the opening of the House of Delegates, mentioned the name of the late Dr. Frank Wynn, of Indianapolis, who some years ago inaugurated the scientific exhibits which have become one of the outstanding features of each A.M.A. meeting. President Abell mentioned Dr. Wynn along with Dr. Billings and the Mayos as men who had helped to make the American Medical Association the great organization that it is today.

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Dr. W. W. Bauer spoke of the "Middletown Modernizes Medicine" exhibit in high terms in his national broadcast from WMHA, the week of the convention. The Indiana State Medical Association apparently started something last year with its display in the scientific exhibit, for this year, in addition to the Delaware-Blackford County Medical Society exhibit, sponsored by the Indiana State Medical Association, there were exhibit booths sponsored by the Missouri, Tennessee, Oklahoma and Iowa state medical societies.

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Society Note: Dr. Herbert L. Egbert and Mr. James F. Glore, who spent an enjoyable week in St. Louis, appreciated the official welcome from the city guardians—even the trip to the city jail, which they visited, so they say, merely in the capacity of witnesses.

Demonstrations in the most modern and efficient surgical technique were not confined to the scientific exhibits and scientific program, according to Dr. Herman Morgan, president of the Indianapolis Medical Society, who attended the convention. "In fact, the most perfect lesson in synchronization and effortless efficiency," Dr. Morgan reports, "was the demonstration presented by Prof. Curt Davis out at Sportsman's Park when that Cardinal pitcher cut down the Giant batters in 1-2-3 order during the closing innings of a typical Big League thriller that was attended by most of the Indiana contingent. I also learned about the potency of a new vitamin—vitamin M—Mize, Medwick and Martin—all of whom registered home runs," Dr. Morgan concluded.

Indiana physicians who registered for the St. Louis convention of the American Medical Association are:

Acre, R. R., Evansville	Cassaday, J. V., South Bend
Adams, W. B., Indianapolis	Catlett, M. B., Fort Wayne
Adams, C. J., Kokomo	Caton, J. R., South Bend
Allen, H. E., Richmond	Caylor, T. E., Bluffton
Allen, O. T., Terre Haute	Chester, H. R., Fort Wayne
Anderson, R. M., Vincennes	Childs, W. E., Princeton
Arbogast, J. L., Indianapolis	Clancy, J. F., Hammond
Atchison, K. C., Rockport	Clark, C. M., Oakland City
Banks, H. M., Indianapolis	Clark, C. P., Indianapolis
Baker, H. M., Evansville	Clarke, E. R., Kokomo
Baker, M. D., Culver	Clements, A. F., Evansville
Barnett, W. E., Logansport	Cole, W. L., Evansville
Batman, F. H., Bloomington	Coleman, H. G., Odon
Batman, G. W., Indianapolis	Collins, A. W., Anderson
Beardsley, F. A., Frankfort	Collins, J. N., Indianapolis
Baxter, N. E., Bloomington	Combs, C. N., Terre Haute
Beatty, N. M., Indianapolis	Combs, P. B., Evansville
Beeler, R. C., Indianapolis	Conover, Earl, Evansville
Beetem, L. F., Madison	Corboy, P. M., Evansville
Benjamin, Margaret, Muncie	Cotton, P. R., Elwood
Beverland, M. E., Indianapolis	Covalt, D. A., Muncie
Bishop, C. A., South Bend	Crimm, P. D., Evansville
Bohner, C. B., Indianapolis	Cring, G. V., Portland
Bonke-Booher, Olga, Indianapolis	Crockett, F. S., Lafayette
Bowers, J. W., Fort Wayne	Culbertson, C. G., Indianapolis
Bowman, R. A., Elkhart	Cummings, D. J., Brownstown
Boyd, C. L., Vincennes	Curry, C. A., Terre Haute
Brazelton, O. T., Princeton	Cuthbert, F. S., Kokomo
Briscoe, C. E., New Albany	Dalton, J. R., Indianapolis
Bronson, Paul J., Terre Haute	Daniel, J. C., Indianapolis
Brown, Frances T., Indianapolis	Daves, W. L., Evansville
Brown, L. W., Indianapolis	Davidson, W. D., Evansville
Browning, J. S., Indianapolis	Davidson, W. R., Evansville
Bruetsch, W. L., Indianapolis	Day, C. W., Indianapolis
Bruner, R. W., Jeffersonville	Day, W. D., Seymour
Buikstra, C. R., Evansville	De Armond, M., Indianapolis
Bulson, E. L., Fort Wayne	Denzer, E. K., Evansville
Burkhardt, A. E., Tipton	Dillinger, G. R., French Lick
Caldwell, W. C., Evansville	Dodds, W., Crawfordsville
Cameron, D. F., Ft. Wayne	Donahue, G. R., Lafayette
Carman, Lucille, N. Manchester	Duemling, W. W., Fort Wayne
Casey, S. M., Huntington	Dugan, T. J., Indianapolis
	Dugan, W. M., Indianapolis
	Durkee, M. S., Evansville
	Dusard, J. C., Bedford
	Eggers, H. W., Hammond
	Ehrich, W. S., Evansville
	Elbert, J. W., Indianapolis
	Elledge, Ray, Hammond

- Elliott, J. C., Guilford  
 Elliott, R. A., Gary  
 Ellison, Alfred, South Bend  
 Elsten, A. W., Lapel  
 Engeler, J. E., Indianapolis  
 Ericksen, L. G., South Bend  
 Estel, G. A., North Madison  
 Evans, R. M., Russiaville  
 Fagaly, W. J., Lawrenceburg  
 Ferrara, D. W., Peru  
 Ferry, P. W., Kokomo  
 Ferguson, A. N., Fort Wayne  
 Fickas, Dallas, Evansville  
 Fitzsimmons, E. L., Evansville  
 Forry, Frank, Indianapolis  
 Forster, N. K., Hammond  
 Forsyth, D. H., Terre Haute  
 Fouts, P. J., Indianapolis  
 Fox, M. S., Bicknell  
 Frash, D. W., South Bend  
 Gaddy, E. T., Indianapolis  
 Gante, H. W., Anderson  
 Ganz, Max, Marion  
 Garceau, G. J., Indianapolis  
 Gastineau, F. M., Indianapolis  
 Gillespie, G. R., Brownstown  
 Gioroano, A. S., South Bend  
 Glock, H. K., Fort Wayne  
 Graves, J. W., Indianapolis  
 Green, G. F., South Bend  
 Gregg, A. F., Connersville  
 Griffith, J. W., Sheridan  
 Grillo, D., South Bend  
 Hall, O. A., Muncie  
 Hamer, H. G., Indianapolis  
 Hamilton, E. E., Dayton  
 Harding, M. S., Indianapolis  
 Hare, E. H., Indianapolis  
 Hare, J. H., Evansville  
 Harstad, C., Rockville  
 Harvey, V. K., Indianapolis  
 Haslem, E. H., Terre Haute  
 Hauss, A. P., New Albany  
 Hays, E. L., Indianapolis  
 Hendricks, T. A., Indianapolis  
 Herman, G. E., Newcastle  
 Herzer, C. C., Evansville  
 Hippensteel, R., Indianapolis  
 Holman, J. E., Indianapolis  
 Holloway, W. A., Logansport  
 Hoy, G. R., Syracuse  
 Huber, C. P., Indianapolis  
 Hudson, F. J., Indianapolis  
 Hughes, J. E., Indianapolis  
 Hughes, W. F., Indianapolis  
 Ingalls, C. L., Washington  
 Johnson, E. E., Covington  
 Johnson, C. G., Evansville  
 Johnson, S. L., Evansville  
 Kelly, W. C., Indianapolis  
 Kendrick, F. J., Gary  
 Ketcham, Jane, Indianapolis  
 King, B. A., Anderson  
 King, J. W., Anderson  
 Kirtley, J. M., Crawfordsville  
 Kitterman, H. K., Indianapolis  
 Klingler, M. E., Garrett  
 Knapp, H. C., Huntingburg  
 Knoefel, A. F., Terre Haute  
 Kraft, Bennett, Indianapolis  
 Kretsch, R. W., Hammond  
 Kuhn, H. A., Hammond  
 Kwitny, I. J., Indianapolis  
 LaBier, C. R., Terre Haute  
 Larkin, B. J., Indianapolis  
 Laubscher, C. S., Evansville  
 Lindenmuth, E. O., Indianapolis  
 Liston, M. E., South Bend  
 Logan, J. R., Evansville  
 Lynch, Paul V., Evansville  
 Lyon, Martha B., South Bend  
 Lyon, M. W., Jr., South Bend  
 Lyons, R. W., Jr., Bloomington  
 MacKenzie, P., Evansville  
 Malone, L. A., Terre Haute  
 Mason, L. R., Muncie  
 Matthews, D. W., N. Vernon  
 Mattox, E. L., Terre Haute  
 Mattox, D. M., Terre Haute  
 McBride, E. C., Terre Haute  
 McBride, N. S., Terre Haute  
 McCarty, V., Princeton  
 McCaskey, C. H., Indianapolis  
 McCool, J. H., Evansville  
 McCormick, C. O., Indianapolis  
 McCormick, W. C., Terre Haute  
 McDonald, J. D., Evansville  
 McDonald, R. M., Mishawaka  
 McDowell, M. M., Freelandville  
 McKain, M. C., Columbus  
 McLaughlin, J. R., Burlington  
 McNaughton, L. M., Petersburg  
 McQuiston, R. J., Indianapolis  
 Merchant, R., Lake Village  
 Meriweather, F. V., Indianapolis  
 Mettel, H. B., Indianapolis  
 Meyer, K. T., Evansville  
 Miller, J. C., Anderson  
 Mitchell, A. M., Terre Haute  
 Mitchell, H. F., South Bend  
 Mitchell, R. E., Indianapolis  
 Montgomery, L. G., Muncie  
 Morgan, H. G., Indianapolis  
 Morris, J. L., Princeton  
 Morrison, D. A., Kokomo  
 Morrison, J. T., Greensburg  
 Mozingo, A. E., Indianapolis  
 Muelch, A. F., Evansville  
 Myers, J. P., Edinburg  
 Nafe, C. A., Indianapolis  
 Nahrwold, E. W., Fort Wayne  
 Napper, F. S., Scottsburg  
 Neher, C. K., N. Manchester  
 Nesbit, L. L., Anderson  
 Newell, A. S., Converse  
 Newman, A. E., Evansville  
 Norton, H. J., Columbus  
 Ochsner, H. C., Indianapolis  
 O'Rourke, C., Fort Wayne  
 Owens, T. R., Muncie  
 Pace, J. T., Rockville  
 Page, I. H., Indianapolis  
 Perrin, K. F., Fort Wayne  
 Petranoff, T. V., Indianapolis  
 Pettibone, G. R., Crown Point  
 Peyton, F. W., Lafayette  
 Praff, D. A., Indianapolis  
 Pollock, E. L., Winslow  
 Quickel, D. S., Anderson  
 Raphael, I., Evansville  
 Ravdin, B. D., Evansville  
 Rawles, L. T., Fort Wayne  
 Regan, G. L., Sellersburg  
 Reilly, J. F., Vincennes  
 Reitz, T. F., Evansville  
 Reynolds, F. G., Indianapolis  
 Rhamy, B. W., Fort Wayne  
 Rhorer, H. M., Kokomo  
 Rhind, A. W., Hammond  
 Riggs, Floyd, Terre Haute  
 Rice, R. M., Indianapolis  
 Rice, Thurman B., Indianapolis  
 Rice, T. R., Petersburg  
 Richey, C. O., Evansville  
 Ritter, W. L., Indianapolis  
 Rissing, W. J., Fort Wayne  
 Roberts, E. S., Indianapolis  
 Romberger, F. T., Lafayette  
 Ropp, H. E., New Harmony  
 Rosenak, B. D., Indianapolis  
 Rosenheimer, G. M., South Bend  
 Ross, H. P., Richmond  
 Ross, L. F., Richmond  
 Rotman, H. G., Jasonville  
 Royster, H. R., Frankfort  
 Ruddell, Karl, Indianapolis  
 Rutherford, C. W., Indianapolis  
 Schwartz, D. L., Ft. Wayne  
 Scudder, J. A., Edwardsport  
 Segar, L., Indianapolis  
 Sennett, C. M., South Bend  
 Sensenich, R. L., South Bend  
 Shaffer, K. L., Vincennes  
 Shanklin, E. M., Hammond  
 Shaw, E. E., Indianapolis  
 Short, J. T., Fort Wayne  
 Shrock, E. E., Amboy  
 Sigmund, W. B., Columbus  
 Silvers, J. C., Muncie  
 Spangler, J. S., Kokomo  
 Spolyar, L. W., Indianapolis  
 Stanton, H. L., Evansville  
 Stephens, O. C., Evansville  
 Stinson, D. K., Rochester  
 Stover, W. C., Boonville  
 Taylor, C. C., Indianapolis  
 Taylor, F. W., Indianapolis  
 Teters, M. S., Middlebury  
 Thomas, C. B., Plainfield  
 Thornton, H. C., Indianapolis  
 Trusler, H. M., Indianapolis  
 Turner, H. D., Muncie  
 Underwood, G. B., Evansville  
 Van Buskirk, E. M., Fort Wayne  
 Van Winkle, A. J., Valparaiso  
 Viney, C. L., Logansport  
 Visser, J. W., Evansville  
 Wagener, G. W., Burrows  
 Walters, L. O., Muncie  
 Weaver, M. M., Indianapolis  
 Weirich, C. I., Butler  
 Weiss, H. G., Evansville  
 Welborn, J. Y., Evansville  
 Wells, M. O., Anderson  
 Wells, N. M., Fairland  
 Weyerbacher, A. F., Indianapolis  
 White, W. J., Gary  
 Wiedemann, F. E., Terre Haute  
 Wilkins, R. W., Ft. Wayne  
 Wilson, L. A., Michigan City  
 Wiseman, V. E., Greencastle  
 Wishart, S. W., Evansville  
 Wood, A. T., Muncie  
 Wood, Donald E., Indianapolis  
 Wood, W. B., Princeton  
 Wood, W. H., Evansville  
 Wood, R. W., Oakland City  
 Woods, A. L., Poseyville  
 Yarling, J. E., Peru  
 Yunker, P. E., Evansville  
 Zaring, E. T., Terre Haute  
 Ziliak, A. L., Princeton

NOW THAT THE A. M. A.  
 CONVENTION IS PAST, MAKE  
 YOUR PLANS TO ATTEND THE  
 ANNUAL MEETING OF  
 THE INDIANA STATE MEDICAL  
 ASSOCIATION IN FORT WAYNE,  
 OCTOBER 10, 11, and 12.

(It is not too early to make hotel reservations)





## President's Page



### INSECT-BORNE DISEASES

All evidence indicates that each of the infectious parasitic diseases of man is caused by a specific *Filaria*, *Protozoa*, *bacteria*, *Rickettsia*, or *virus*. It is notable also that these have become so highly specialized that association with alternate hosts is necessary for the preservation of the species. The definitive host harbors the sexual stage of the parasite, while the intermediate host shelters its sexual phase. Also the method of transfer of the virus from insect to mammal varies with the species of host. In the case of mosquitoes, biting flies, biting bugs, ticks and lice, the pathogen is usually found in the saliva, the feces, or the fluids liberated from the body cavity of the crushed insect. Such biological transmission occurs in malaria, yellow fever, sleeping sickness, relapsing fever, typhus, etc., but mechanical transmission also occurs.

A vast amount of labor has been expended in tracing the transmission of insect-borne pathogens with the object of blocking their routes. However, man's efforts to accelerate communication have occasionally resulted in breaking barriers which formerly prevented their spread; for example, bubonic plague is believed to have been introduced into California by infected rats migrating from oriental ports. Moreover the aeroplane is regarded by many as a potential means of spread of some diseases.

This entire field is so great that we will consider here only Rocky Mountain spotted fever. Since 1910 physicians have been interested in *Rickettsia*, minute bacteria-like organisms. *Rickettsia rickettsii* is parasitic not only in ticks but also in many rodents and higher animals, including man. It is the cause of Rocky Mountain spotted fever, once thought to be limited.

Rocky Mountain spotted fever is believed to be transmitted only by the bite of an infected tick. Three species are proved vectors: the wood tick, *Dermacentor andersoni*; the dog tick, *Dermacentor variabilis*; and the rabbit tick, *Haemaphysalis leporis-palustris*. The wood tick is found in the Rocky Mountain region and adjacent areas. Its larvae and nymphs are parasitic on many rodents, while the adults infest mainly large wild and domestic animals, including man. The life cycle of this tick is completed in two years, during which it feeds three times, first as a larva, then as a nymph, and last as an adult. The number of infected ticks is said to vary from 1 to 11 per cent.

The rabbit tick is the most widely distributed of the three ectoparasites. It occurs from the Hudson Bay southward into South America and its life cycle requires one year. It is asserted that it carries only a mild strain of the virus.

Continuity of virus is maintained by males infecting females during impregnation; the eggs of infected females producing infected nymphs which finally develop into infected adults, and these may infect susceptible hosts; after the virus develops, the host may infect other non-infected ticks.

Rocky Mountain spotted fever varies in severity from very mild to rapidly fatal infections. It is characterized by an incubation period of three to ten days followed by a chill, severe pains in the extremities, a febrile course, and a general macular eruption. Diagnosis is made from the history, the clinical symptoms, and the laboratory tests. Treatment is symptomatic and supportive.

The disease is endemic in all the eleven Rocky Mountain and Pacific States, in North and South Dakota and in twenty-six of the Central and Eastern States. According to Parker, there is no evidence either of peripheral expansion of the area infested with the virus of spotted fever or of the establishment of new foci in Eastern States by shipments of stock parasitized with infected ticks.

In Indiana the first known case occurred in 1925 in Vigo County. Following this, one case was reported in 1933 from Montgomery County; three in 1937, one from Montgomery County, one from Owen County and one from Monro County, nineteen in 1938, three from Vigo County, two from Scott County, two from Dearborn County, one from Fountain County, one from Cass County, one from Owen County, two from Montgomery County, two from Marion County, one from Monroe County, one from Delaware County, and three from Ripley County. Nine of the patients reported in 1938 died, a fatality rate of 47.2 per cent.

The complete eradication of ticks or of infected rodents is apparently impossible. However, useful prophylactic measures are available. In the first place, physicians should be as prompt in reporting cases as they attempt to be in diagnosing them. Reporting enables local health authorities to direct their efforts effectually. Their procedures may include: destroying ticks by clearing and burning underbrush, by dipping domestic animals in arsenical solutions twice each year, and by the destruction of ground squirrels, chipmunks, and other rodents by poisons or trapping.

The health officer may also initiate a campaign of education for transient and permanent residents of infected areas. This may include information concerning the prophylactic value of personal hygiene and vaccination. Personal care requires the avoidance of tick bites, the wearing of suitable clothing, and the prompt removal of any ticks found attached to the body. High boots or socks worn over the trousers prevent the insects from crawling up the legs. It is said they transfer from vegetation to clothing at a height

of less than eighteen inches and then may crawl to the back of the neck; the habit of passing the hand over the back of the neck to feel for ticks is desirable. In dangerous areas the tick should be immediately removed preferably with forceps. Iodine or a similar agent should then be applied to the site of the bite.

The most dangerous occupation is handling sheep on the range, but hunters, trappers, surveyors, foresters, prospectors, miners, highway construction workers, employees of railroads, fishermen, picnickers, campers, and tourists are often exposed to ticks. Infections caused by the wood tick are most common in April and May, but in the East more cases occur in the summer, the season of greatest activity of the dog tick. Immunity may be acquired by having the disease or by the administration of a phenolized emulsion of the viscera of infected ticks. It is injected subcutaneously or intramuscularly in two doses, 2 cc. each dose, given five days apart. It is said to have definite protective value varying with the person vaccinated and with the virulence of the virus. Apparently the vaccine gives full protection against the mild disease and partial protection against the severe type of the disease.

Rocky Mountain spotted fever has probably long been endemic in the areas now known to be infected. New knowledge now enables clinicians to recognize a condition formerly confused with other diseases. Although large epidemics may be avoided by prophylactic measures, the disease is often so severe and the circumstances so dramatic that all physicians should be alert to institute all the available measures of control.

*E. M. Van Burskirk.*

## CONSERVATION OF VISION

The Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association requested that the State Association should have a committee on the conservation of vision. This committee was appointed for the first time this year. Several meetings have been held and the committee has formulated a program for the conservation of vision. The resolution which resulted in the formation of such a committee pointed out certain duties of the committee, namely:

- (1) To encourage ocular hygiene;
- (2) To disseminate knowledge for the prevention of blindness and the conservation of vision;
- (3) To acquaint the public and particularly industries and schools concerning proper illumination and other protective measures for the eyes; and
- (4) To help create and advise sight conservation classes.

Realizing that a large percentage of the blindness in Indiana is preventable, that vision can be conserved, and that the medical profession should take the leadership in a conservation program in Indiana, the following program is outlined:

### 1. Ophthalmia Neonatorum

#### (a) Prophylaxis

The State Board of Health requires that prophylaxis be used against ophthalmia neonatorum but makes no definite recommendations as to the drug to be used, so that argyrol, mercurochrome, silver nitrate, metaphen, merthiolate, or even breast milk may be used. Some thirty states are advocating and distributing one per cent silver nitrate solu-

tion in collapsible beeswax ampules and this seems the most logical drug at the present time. The Indiana Academy of Ophthalmology at a recent meeting passed a resolution recommending this prophylactic agent.

#### (b) Reporting and Treating

The incidence of ophthalmia neonatorum is entirely too high. Fifteen per cent of the children in the blind school are blind from this disease. Two and one-half per cent of those on the blind pension rolls in Indiana are blind from ophthalmia neonatorum. Very few of these cases are reported to the Health Department, but in one Indiana city of 100,000 the hospital records show ten of these cases in the last five years. Many more milder cases are not hospitalized. In order to stamp out this disease in children let us report these cases to the health officer to see that adequate ophthalmological and nursing care is available for them and that such a service would be available for gonorrheal ophthalmia in the older group.

### 2. Syphilis

One hundred ninety-two people in Indiana, or eight per cent of the total blind pension roll, are blind from syphilis. The syphilis program will do much to reduce this figure and Indiana physicians are urged to prevent, discover and thoroughly treat syphilis. Pre-natal blood Wassermanns would do much toward preventing interstitial keratitis and optic atrophy.

### 3. Trachoma

Wipe out trachoma in Indiana. Trachoma was the largest single etiologic cause of blindness among the blind pensioners. Practically all of the



trachoma is in the southern Indiana counties. The Public Welfare Department is willing to cooperate with the medical profession in making available the names and addresses of every trachoma patient that they can locate. This is an infectious disease and with the glowing reports of its treatment with sulfanilamide, these cases can be cured, or at least arrested. The county medical society, through its membership, can get the cooperation of the health officer in seeing that these cases, like syphilis, are adequately treated. Let us make a concerted drive on this disease. The committee will be glad to cooperate with the local medical society in working out a program to make this possible. The leadership in this problem should come from the medical profession, or the Public Welfare Department, the Board of Health or some outside agency that will do it for us.

#### 4. Squint

Children who have a cocked or crossed eye do not outgrow it, as is the popular belief, but on the contrary the squinting eye, from disuse, becomes amblyopic and the longer it remains unused the more difficult it is to cure. The earlier squint is corrected (from two to five years of age is most desirable), the more probable it is that good vision will be obtained. The methods for correcting squint are:

- (a) Glasses fitted under cycloplegic drops;
- (b) Orthoptic training;
- (c) Occlusion of the better eye;
- (d) Surgery;
- (e) A combination of the above methods.

If a child with a crossed or cocked eye comes under your care, direct him to an oculist for an early correction of his squint. Explain to the parents that often two or three years of observation and treatment are necessary to produce good results.

#### 5. Early detection of visual defects and their correction

If visual defects are discovered only after the child gets to the school age, many already have developed amblyopia from disuse of one of their eyes. Even the summer roundup usually allows too little time before school to correct these defects. A child's vision can be tested by an inverted E chart in the doctor's office, usually at two or three years of age. Pediatricians and other physicians taking care of children will find that if the vision is tested during a complete examination, the parents will appreciate this extra service.

#### 6. The school child

Most cities and many smaller community schools examine the vision of school children routinely. The saving to the taxpayer in discovering backward children who have to take work over and increase the cost to the school city because of defective vision has more than paid for this exam-

ination. Some communities do not do this routinely because of a lack of adequate nursing supervision. Teachers can be taught to do this by physicians and nurses, and county medical societies are urged to encourage visual tests routinely for all school children. They are also urged to carry on a campaign of education to see that these defects are corrected. Parent-teacher groups are very much interested in this service and will cooperate in providing glasses or necessary care.

The attention of the schools should be called to the importance of adequate lighting according to the standards provided by the Illuminating Engineering Society and the American Institute of Architects, giving each child a maximum amount of light and avoiding glare. Special provision should be made for the visually handicapped child, providing sight-saving classes for him if these are necessary. Indiana now has four such classes; many more are needed. It is estimated that one out of every 500 school children has corrected vision between 20/70 and 20/200 and should be in sight-saving classes. Several adjoining counties could combine their resources to provide such classes if necessary. The State Board of Public Instruction will pay 75 per cent of the excess capita tax to provide such classes. All children with visual defects should be referred to an oculist or to their family physician for his direction to an oculist.

#### 7. Safety Campaign

The medical profession should take the leadership in a campaign for safety. Eighty-nine per cent of eye accidents are caused by fireworks. This year Indiana will again have this hazard and the medical profession should warn the public of the danger from fireworks. It should also take the leadership in sponsoring legislation regulating the use and sale of BB guns, slingshots, or other toy weapons dangerous to the eyes.

In industry, the use of goggles to protect the eyes from flying particles and bright lights should be advocated, especially in contacts with industry and whenever the opportunity to give such valuable suggestions presents itself, as in small industries (garages) where there is no general safety supervision. The difference between an examination of vision of all employees by an oculist and an optometrist should be pointed out. The early diagnosis and treatment of eye injuries in and out of industry will save many more eyes.

#### 8. Education

The public should be educated to the danger of glaucoma and other eye diseases. Glaucoma causes at least ten to twelve per cent of blindness. It is a very insidious disease and often when discovered it is too late to conserve much vision. Knowledge of cataracts, myopia, presbyopia, squint and other eye diseases should be common knowledge. Hazards to eyes and the importance of

vision should be a part of an educational campaign.

These are the plans of the State Conservation of Vision Committee. We are planning to send letters to each county medical society secretary asking that each take an active part in this campaign. The physicians can do more to conserve vision than any other organizations.

The following is a copy of the recommendations that are being sent to county medical society secretaries.

The following recommendations are suggested by the Committee on Conservation of Vision of the Indiana State Medical Association:

1. In the eyes of the new born, immediate instillation of 1% silver nitrate (beeswax ampules), 1 to 3 drops without irrigation following.
2. Treatment of squint or cross eyes as early as possible, preferably as early as three years of age.
3. Examination of all school children for visual defects and immediate treatment for all defects found.
4. Early detection and treatment for congenital and acquired syphilitic eye cases.

5. Examination and supplying of necessary glasses to the medical indigent school children.
6. Encourage visual tests on preschool children. Examination of vision with every general physical examination.
7. Early recognition and treatment of trachoma. (15% of the total blindness in the state of Indiana is caused by trachoma.)
8. Children with corrected vision between 20/70 and 20/200 should be in sight saving classes.
9. All school children with congested eyes should be referred to an oculist when possible.

This program should be carried on through the school nurses in larger cities and through teachers and county superintendents in schools where no school nurses are employed.

Please refer this communication to the oculists of your county society, who will do all they can to further this program.

#### COMMITTEE ON CONSERVATION OF VISION

J. V. Cassady, M.D., *Chairman*, South Bend,  
Robert Masters, M.D., Indianapolis,  
E. L. VanBuskirk, M.D., Lafayette,  
E. E. Holland, M.D., Richmond,  
O. T. Allen, M.D., Terre Haute.

### KNOX COUNTY REPORTS ON A. M. A. SURVEY

Knox County, with a population of 43,600, has Vincennes as its principal city. It is situated in the southwestern section of the state, with the Wabash River forming the western boundary.

Questionnaires were sent to 100 physicians and dentists of whom 19 sent replies; 1 hospital, 1 nurse, and 3 pharmacists replied to questionnaires sent, and 2 blanks sent to health departments and welfare agencies were unanswered.

There are 41 physicians and 20 dentists in active practice in the county. The greatest distance that the nearest physician would have to travel to reach persons in the area is twenty-five miles.

One full-time and one part-time public health nurses serve the area. Nine pharmacists and 2 hospitals also serve Knox County. The hospitals supply a total of 150 beds, including 9 bassinets. These rooms were 39% occupied in private rooms and 42% in wards during 1937. Rates range from \$1.45 (township rate) in the wards to \$4.30 per day in private rooms.

Nine schools have health supervision services; all of these schools are below the college level.

During 1937, physicians were reported as having given free services in the office, home, or hospital to 1,503 persons. Nurses made 592 visits, all without charge to the patient. The township trustee supplies medicines for the indigents, though

there were 98 prescriptions compounded by pharmacists during the year for which no charge was made, and 200 prescriptions were compounded at cost or reduced fees.

In reporting the need for medical care, none were reported as needing hospital care who were not admitted as bed patients to a hospital; and none were reported as needing medical services who were refused.

In an examination of kindergarten children in Vincennes in April, 1937, it was found that of 320 examined, 304 had not been vaccinated for smallpox; 253 had not been immunized against diphtheria; 177 needed dental care; 2 were crippled children who needed care.

One instance was reported by a physician where immediate hospital services could not be obtained, and the reason given was "inability to get admission to State hospital because over-crowded conditions prevented emergency hospitalization." There were reported 799 instances during 1937 in which persons were referred from welfare agencies, etc., and treated at a reduced fee or free.

Some of the physicians who answered the questions replied that they could see no need for changing the present methods of supplying medical services and that the present method in Knox County is perfectly adequate.



## UNDER THE CAPITOL DOME

Authority of the state, through the State Board of Medical Registration and Examination, to enjoin a person from practicing medicine without a license was upheld recently by the Indiana Supreme Court.

The decision was made in an appeal of the board from the Carroll County Circuit Court which had refused to grant such an injunction against George L. Cole, who practiced chiropractic without a license. Mr. Cole, through his attorneys, claimed that the practice of medicine without a license in this state is a misdemeanor, punishable by fine; that the action against him was an attempt to enforce the criminal laws of the state by an equitable proceeding and, if successful, would deny him his Constitutional right of trial by jury and make him liable to double jeopardy. In his pleadings in the case Mr. Cole charged that the chiropractic act of 1927 has been nullified by alleged arbitrary and capricious conduct.

### ACCURACY OF PUBLIC SCALES

A report that public scales, widely used by Hoosier women to keep check on their weight, purposely are set to weigh light to flatter them was scouted by Rollin E. Meek, chief of the bureau of weights and measures, in the state department of public health.

During the past two years, Mr. Meek reported, the bureau has made sample tests of 726 scales of the penny-slot type. Results of the tests showed that fifty-six of them needed adjustments which were made, while an additional 139 were condemned as useless. Three were confiscated. This made a total of 198 scales of those inspected not showing the correct weight prior to the inspection. A "tolerance" of a few ounces is permitted in scales used for this purpose.

The bureau does not make an inspection of free scales used as advertising mediums by many stores throughout the state, Mr. Meek said, and the bureau thus has no check as to their accuracy. Since no charge is made for use of these scales they do not come under the bureau's jurisdiction.

An independent and entirely unofficial check of some of these free scales in the state showed a variation of several pounds in some of them.

Generally speaking, however, Mr. Meek said that in his opinion most of the public scales could be relied upon for reasonably accurate weight recordings. He pointed out that most of them are manufactured by reliable firms.

### SPREAD OF RABIES

Man's inbred love of dogs is responsible, more than any other one thing, for the spread of rabies, in the opinion of Dr. J. Leonard Axby, state veterinarian.

Dogs, while they are only one of many animals responsible for spread of rabies, are probably the worst offender. That is because of the fact that dogs "get around" so extensively.

Stray dogs, Dr. Axby said, are the answer to rabies. Eliminate stray dogs and the disease will be practically, if not entirely, wiped out. Classified with the stray, so far as being a potential spreader of rabies is concerned, are the pets who are permitted to run about without restraint.

Rabid dogs travel almost unbelievable distances, doing untold damage as they roam. Dr. Axby cited a recent case in which a rabid animal traveled from Auburn to Vincennes before being killed, a course from almost one end of the state to the other. The number of animals he may have bitten and infected never will be known, he said. Fortunately, in that particular case, he bit no humans.

The state has power to order quarantines in any area where rabies is prevalent, and it is in those quarantined areas that man's love for dogs causes the difficulty. The quarantines provide that dogs must be kept up for a period of 120 days, with some provision for dogs that have been immunized against rabies. Law enforcement officers are required to kill on sight stray dogs in the quarantined areas. But there is where the trouble comes in. Dog owners sometimes fail to keep up their pets. Sheriffs, constables, and police are reluctant to kill them. That reluctance springs from two sources: natural love for the animals and fear of making an enemy of the dog owner.

A "hard boiled" policy, killing strays whether they are known or unknown dogs, and making quarantines ironclad in their operation, and a heartless policy of destroying strays whether there is a quarantine or not is the only solution, Dr. Axby said.

"Understand," Dr. Axby said, "this is not a pleasant thing, nor is it an easy thing to say. I like dogs myself and have two of my own. I know almost everybody likes dogs. But, if rabies is to be wiped out, there is no other way."

Two of the important new health laws will not be effective until 1940, and thus far no particular or significant steps have been taken to put them in operation, according to Dr. Verne K. Harvey, secretary of the State Board of Health.

The blood test law, requiring prospective brides and grooms to take these tests before receiving a marriage license, will become operative in March, 1940. This law, Dr. Harvey said, makes the middle western states practically uniform in pre-marital health examinations. The Indiana law will become effective at the same time that Kentucky's new law does, and Ohio has a similar law pending.

The law providing for syphilis tests for expectant mothers on diagnosis of pregnancy becomes operative next January.

## Deaths

DR. C. AGNES (MCMAHAN) JONES, retired physician, died April twenty-first, aged eighty-nine years, in Lafayette. She had practiced medicine in Evansville, Lafayette, and Indianapolis.

BERTRAND M. O'BRIEN, M.D., of Danville, died May first, aged fifty-eight years. Dr. O'Brien had practiced in Henry county since 1903. He graduated from the St. Louis College of Physicians and Surgeons in 1903.

ADAM W. SCHREIBER, aged fifty-nine, prominent physician of Lafayette, died in a Lafayette hospital, April twenty-first. Dr. Schreiber was an internist; he graduated from Washington University School of Medicine, St. Louis, in 1903. He was a member of the Tippecanoe County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

RALPH V. MURRAY, M.D., of Roanoke, aged fifty-nine, died May sixth. Dr. Murray served overseas during the World War and had practiced medicine in Zanesville and Roanoke for thirty-five years. He graduated from Jefferson Medical College, Philadelphia, in 1904.

JAMES CLAY ROSS, M.D., of Marion, died May third, aged sixty-two years. Dr. Ross was a graduate of the Louisville Medical College in 1906, and had practiced in Marion for the past twenty years.

### POSTGRADUATE COURSES IN OBSTETRICS TO BE CONTINUED

POSTGRADUATE COURSES IN OBSTETRICS AT THE INDIANA UNIVERSITY MEDICAL CENTER WILL BE CONTINUED. ENROLL NOW FOR 1939-1940. FIRST COURSE WILL START AUGUST 15, 1939. ADDRESS BUREAU OF MATERNAL AND CHILD HEALTH, INDIANA STATE BOARD OF HEALTH, INDIANAPOLIS, FOR PARTICULARS.

## News Notes

Dr. T. E. Ward has sold the Williamsport hospital to Dr. Lee Maris of Attica.

The fourth annual assembly of the International College of Surgeons will be held at the Hotel Roosevelt in New York May 21-25.

J. E. Rhorer, M.D., formerly of Elnora, and recently stationed at Fort Benjamin Harrison, has been transferred to Angola, Ind.

W. M. Hoppenrath, M.D., of Elwood, has been notified of his appointment as regional medical examiner for the Civil Aeronautics Authority.

Dr. Gilbert Schneider has been appointed assistant superintendent of the Lake county tuberculosis hospital. Dr. Philip Becker is superintendent.

Dr. W. U. Kennedy of Newcastle has been appointed Director of Research on Sickness Insurance of the Indiana State Medical Association for 1939. Dr. Kennedy has made numerous trips to Europe since the World War and is well informed on the European situation.

A two weeks course in electrocardiography is to be given at Michael Reese Hospital, Chicago, August 21 to September 2, under the direction of Dr. Louis N. Katz. Complete information may be obtained by writing to the Cardiovascular Department of the hospital, 29th and Ellis Avenue, Chicago.

Dr. Verne K. Harvey, secretary of the Indiana State Board of Health, was made vice-president of the State and Provincial Health Authorities of North America at the meeting held in Washington, April twenty-fifth. Dr. W. B. Grayton of Little Rock, Arkansas, was made president, and Dr. A. J. Chesley of Minneapolis was re-elected secretary.

Mrs. Gertrude Lord of Kewanna died in April. She was the mother of five sons, four of whom are doctors: Dr. Glen Lord, Indianapolis, Dr. Robert Lord, Kewanna, Dr. M. P. Lord, Lafayette, and Dr. F. E. Lord of Michigan. Two daughters also survive.



Dr. Bruce W. Stocking has taken up his duties as radiologist for Ball Memorial Hospital in Muncie, replacing Dr. Paul D. Moore who has resigned to devote his entire time to his private practice. Dr. Stocking went to Muncie from Jackson, Michigan, where he was radiologist at the W. A. Foote Memorial Hospital.

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Dr. A. B. Graham of Indianapolis was the honor guest of 150 professional and lay friends at the James Whitcomb Riley Hospital, May eighth, when he was presented with a portable radio and a gold medal from the faculty of the Indiana University Medical School. Dr. Graham is retiring from the faculty after a service of forty years.

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Dr. E. J. Kalal, who has been in charge of the Indiana Reformatory Hospital since February first of this year, has announced the opening of an office for private practice at 128 State St., Pendleton, Indiana, on June first. Dr. Kalal will continue his work at the Reformatory also.

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Dr. Lucretia A. Richison of Elkhart and Dr. L. Forrest Swank of Elkhart were married May fourteenth.

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Dr. B. H. B. Grayston of Huntington celebrated his eighty-ninth birthday, May twelfth, at his home in Huntington. Doctor Grayston retired from active practice a few years ago. He has been an honorary member of the Indiana State Medical Association since 1933.

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The thirty-fifth annual reunion of the class of 1904 of the Indiana Medical College (Indianapolis) was held at Forest Park, Noblesville, April twenty-sixth. Four class teachers attended: Drs. W. N. Wishard, James H. Taylor, C. Richard Shaffer and John A. Pfaff, all of Indianapolis. Dr. J. D. Sturdevant, Noblesville, and Dr. Frank Rodenbeck, Arcadia, were hosts for the reunion.

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Dr. James H. Stygall, of Indianapolis, was elected second vice-president of the American Academy of Tuberculosis Physicians at the annual convention in St. Louis, in May. Dr. B. P. Potter of Jersey City, N. J., was elected president, and Dr. Arnold Minning, of Denver, was made secretary-treasurer.

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Dr. Orval J. Miller of Fort Wayne was elected president of the Fort Wayne Academy of Medicine and Surgery at the annual dinner meeting of the organization held May tenth. Dr. Miller succeeds

Dr. A. N. Ferguson. Other officers elected are Dr. Eugene L. Bulson, vice-president, Dr. Maurice Glock, secretary-treasurer, and Dr. William Clark and Dr. Walter Kruse, two-year terms on the executive council.

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The eighteenth annual session of the American Congress of Physical Therapy will be held September fifth to eighth, 1939, at the Hotel Pennsylvania in New York City. An instruction seminar in physical therapy for physicians and technicians will precede the sessions, beginning August thirtieth; for this period, registration will be limited to one hundred. Complete information may be obtained from the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago, Ill.

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The American Public Health Association recently adopted five reports dealing with educational qualifications of public health statisticians, school health educators, public health engineers, sanitarians, and sub-professional field personnel in sanitation. The reports are distributed free of charge in the hope that they will serve a useful purpose in raising the educational standards of professional public health personnel. Copies may be secured from the Book Service, American Public Health Association, 50 West 50th Street, New York, N. Y.

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Woodson S. Carlisle, South Bend attorney, was made president of the Indiana Tuberculosis Association at the final session of the organization's twenty-eighth annual conference in Indianapolis, April nineteenth. Mr. Carlisle succeeds Dr. M. R. Lohman of Fort Wayne. Other officers elected are Dr. W. C. McFadden, Shelbyville, first vice-president; A. W. Mitchell of LaPorte, second vice-president; Mrs. Tom Scott of Kokomo, secretary; Dr. E. M. Amos, Indianapolis, treasurer; and Dr. C. J. McIntyre of Indianapolis, assistant treasurer.

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A one-reel motion picture entitled "Footsteps," portraying the training of the Red Cross Nurse and the humanitarian work she performs, has been prepared for free distribution by the American Red Cross. The purpose of the film is to acquaint the public with the scope and nature of the activities of the Red Cross in behalf of mankind. The film is available for free loan to churches, colleges, schools, clubs, and other organizations, and may be had in standard 35 mm. or 16 mm. size. The film may be obtained without cost (except for slight transportation charge) by writing to Douglas Griesemer, director of public relations, American Red Cross, 19 East 47th Street, New York, N. Y.

The Indiana Society of the History of Medicine, organized early this year, held its second meeting, May seventeenth, in the library of the Eli Lilly Clinical Research Building. Dr. Edgar F. Kiser, president, reported upon the recent annual meeting of the American Society of the History of Medicine, and Dr. Franklin B. Peck read a paper on the "History of Smallpox and Vaccination in the United States." The next meeting of the society will be held September twentieth. Any physician interested in medical history is invited to attend the meetings and become a member of the society. Mrs. Irene Strieby, librarian, Eli Lilly and Company, Indianapolis, is secretary for the Indiana society.

The Bone and Joint Club of Indiana, recently organized by surgeons from the entire state who are interested in bone and joint surgery, held its first annual meeting at the Indianapolis Athletic Club on April 26, 1939. Almost the entire membership of thirty surgeons attended. Dr. August Knoefel of Terre Haute led a round table discussion on "Forearm Fractures." Preceding the dinner meeting, officers were elected for 1939-1940 as follows:

President, E. B. Mumford, M.D., Indianapolis.

Vice-President, G. W. Batman, M.D., Indianapolis.

Secretary-Treasurer, C. F. Thompson, M.D., Indianapolis.

A program committee consisting of Drs. L. L. Shuler, (chairman), A. F. Knoefel, M. S. Davis and L. A. Ensminger made plans for two meetings during the season. After the dinner, Dr. W. H. Baker of South Bend presided at a round-table discussion on "Injuries to the Shoulder Joint."

#### CORRECTION

In the report of the Syphilis Control Committee as published on page 284 of the May issue of THE JOURNAL, Recommendation II was printed incorrectly. The whole paragraph is reprinted here:

RECOMMENDATION II. The Syphilis Control Committee has repeatedly gone on record to the effect that the Laboratory of the State Board of Health should refuse to perform blood tests for industry. In the future this committee suggests that the State Board of Health refuse to run tests for commercial firms. This committee does not consider any firm or corporation to be medically indigent and protests against the running of tests for the employees as a group by the State Board of Health. Whenever the tests are being done at the instance of the individual only, those tests of such members of the group as are medically indigent shall be eligible for such tests.

The Business Bureau of the Lake County Medical Society is conducting a training course for physicians' secretaries. The first meeting was held at Mercy Hospital in Gary, May fifth. The course consists of a series of lectures on credit collections, business procedures, and office management as applied to doctors' offices. In the belief that it is not necessary for physicians to refer such a large percentage of accounts to agencies for collection, the Business Bureau of the society proposed to establish proper, tested and proved methods in the physician's own office. Interested physicians were invited to attend the first meeting, but all were urged to be sure that their secretaries attended so that this phase of the program could be effectively initiated.

#### EIGHTH DISTRICT MEDICAL SOCIETY

##### Officers

President, C. V. Rozelle, Anderson  
Secretary, L. G. Montgomery, Muncie  
Councilor, M. A. Austin, Anderson

##### Program

Date: June 14, 1939 (Wednesday)

Place: Anderson

Through the courtesy of the Delco-Remy division of General Motors, the afternoon meeting will be held at the Delco-Remy plant, with tours through that giant industry and the program sponsored by their medical department in charge of Dr. F. B. Wishard.

##### Afternoon

1:00 p.m.—Group tours through plant and medical department

3:00 p.m.—Seminar. Subject: Industrial Dermatoses. Cases presented.

Discussion—Frank Gastineau, M.D., Indianapolis

4:00 p.m.—Respiratory infections. Typical cases selected from over 16,000 x-ray plates.

Discussion—J. H. Stygall, M.D., Indianapolis

5:00 p.m.—Business session

Smokes and refreshments.

##### Evening

6:30 p.m.—Chicken dinner at Grandview Golf Club (Reservations appreciated)

7:30 p.m.—"The Mechanics of Labor." Motion pictures and seminar.

Discussion—Foster J. Hudson, M.D., Indianapolis.

"History of Medicine." Illustrated. E. F. Kiser, M.D., Indianapolis.

An opportunity will be given to see a giant modern industrial plant at work, observe working conditions and measures provided for accident prevention and health protection of employees. A program of exceptional interest to every doctor. Members of the Indiana State Medical Association are cordially invited to attend another typical Eighth District program.



**INDIANA UNIVERSITY NEWS NOTES**

A Department of Medical Economics and Postgraduate Instruction will be added to the Indiana University Medical Center in Indianapolis, with Dr. Cyrus J. Clark, associate professor of cardiology, as chairman of the newly created department.

Dr. W. D. Gatch, dean of the Indiana University School of Medicine, pointed out that there is a tremendous interest at present in the cost of medical care, in what constitutes adequate medical service, in the socialization of medicine and in medical economics in general.

"There is a great demand and great interest in postgraduate instruction for doctors in practice," he said. "Medical knowledge is advancing rapidly and new methods and techniques are constantly being developed, which the practitioner must learn if he is to keep abreast of the time."

In addition to Dr. Clark, the personnel and titles for the new department are as follows:

Dr. Leonard A. Ensminger, chairman and professor of orthopedic surgery and assistant in medical economics and postgraduate instruction; Dr. Louis H. Segar, clinical professor of pediatrics and assistant in medical economics and postgraduate instruction; Dr. Jacob K. Berman, assistant professor of surgery and assistant in medical economics and postgraduate instruction; Dr. Howard B. Mettel, assistant professor of pediatrics and assistant in medical economics and postgraduate instruction.

Dr. John E. Owen, assistant professor of surgery and assistant in medical economics and postgraduate instruction; Dr. Ernest O. Asher, associate in medicine and assistant in medical economics and postgraduate instruction; Dr. Kenneth Kohlstaedt, associate in medicine and assistant in medical economics and postgraduate instruction; Dr. Walter P. Morton, associate in genito-urinary surgery and assistant in medical economics and postgraduate instruction; Dr. William N. Wishard, Jr., associate in genito-urinary surgery and assistant in medical economics and postgraduate instruction, and Dr. James E. Moffat, professor of economics.

In honor of Dr. A. B. Graham, who will retire in June after 40 years as a member of the faculty of the Indiana University School of Medicine, medical colleagues and friends held a dinner at the Riley Hospital May 8. Speakers at the dinner included Dean W. D. Gatch, Indiana University School of Medicine; Mayor Reginald Sullivan, Indianapolis; A. Kiefer Mayer, Indianapolis; Dr. J. W. Ricketts, Indianapolis, and Dr. A. F. Weyerbacher, Indianapolis. Albert Rabb, member of the Indiana University board of trustees, presented Dr. Graham with a gold medal.

Dr. Graham is a graduate of Hanover College and the old Indiana Medical College. He studied in Berlin in 1898 and 1899 under Ewald, the founder of the study of gastroenterology. He began his teaching career at the Medical College which merged with the School of Medicine in 1908. Dr. Graham is a former president of the Marion County Medical Society, Indiana State Medical Association and chairman of the section of gastroenterology and proctology of the American Medical Association.

Thirty-four physicians from 22 states extending from Maine to California and the Great Lakes to the Gulf of Mexico attended a two-weeks postgraduate course in otolaryngology at the Indiana University School of Medicine the last two weeks of April.

The course, only one of its kind in the United States, was created principally through the efforts of Dr. John F. Barnhill, professor emeritus of surgery of the head and neck at the school. The course was started seven years ago.

Dr. C. H. McCaskey, chairman of the Indiana University otolaryngological department, presided at a dinner held the first day of the course at the Indianapolis Athletic Club. Dr. McCaskey was chairman of the course this year.

Courses consisted of basic instruction in anatomy, the basic subject of otolaryngology. Recommended by many of the national societies in the specialty, it admitted only physicians recognized by medical societies and classified by the American Medical Association directory.

Dr. Barnhill originated the course by organizing his staff as a study club when he was chairman of the department in 1921. The sessions were so successful during the next few years that they became a course of national scope in 1932.

States represented at the course this year were New York, Ohio, Pennsylvania, New Jersey, Iowa, Minnesota, California, Texas, Connecticut, Oklahoma, Tennessee, North Dakota, Maine, Maryland, Kentucky, Kansas, Massachusetts, Oregon, South Carolina, Wisconsin, Virginia and Indiana.

Doctors from all sections of Indiana attended the annual postgraduate course offered at the Indiana University School of Medicine the week of April 10. Visiting lecturers gave a diversified picture of the progress of medicine and surgery as a climax each night to the clinics and demonstrations conducted during the day.

Among the visiting lecturers were: Dr. W. M. Firor, Johns Hopkins University; Dr. D. D. Hart, Duke University; Dr. Norton Willcutts, chief surgeon of the United States Naval Hospital, Washington, D. C.; Dr. W. C. C. Cole, University of Detroit, and Dr. John Toomey, Western Reserve Medical School.

Dr. John L. Ferry, graduate of the Indiana University School of Medicine with the class of 1936, and native of Akron, Ind., has been appointed clinical assistant in the department of medicine at the University of Chicago. Dr. Ferry will work with Dr. George Dick in his new position. He attended Purdue University two years, then transferred to Indiana University at Bloomington.

Drs. Sid Robinson and P. M. Harmon of the Indiana University faculty at Bloomington are starting a long time study of the general problem of physiological adaptation to work in relation to age, race, nutritional state and athletic training. Dr. Robinson has just returned to the I. U. campus after a two-year period at Harvard, where he published rather extensive data on the influence of age on adaptations in non-athletic white boys and men. These data open many problems pertaining to growth and decline in man and will serve as a basis for comparison in future investigations. Facilities for this research include a motor-driven treadmill, cardiograph, Benedict basal metabolism apparatus modified for determining residual air, as well as apparatus for determining lactic acid, blood sugar and other biochemical analyses.

Dr. R. L. Jones of the Indiana University Anatomy Department is studying the actions of the muscles and ligaments of the human foot and especially their relation to the support of the arch. Normal legs and feet from cadavers are partially dissected to expose the tendons of the long muscles. The exposed tendons are then subjected to known tensions approximately duplicating the actions of the muscles. The effects of these tensions on the movements of the foot and the arch are observed and quantitative data gathered by means of scales, levers, springs, etc. He is also studying the distribution of weight bearing in the living foot, using for subjects medical students who have been glad to cooperate. From these two methods of approach it is hoped that more specific information concerning the role of the muscles and ligaments in the support of the arch may be obtained. A demonstration of this analytical equipment as applied to a partially dissected leg and foot was set up for inspection at the meeting of the American Association of Anatomists in Boston during April.

IF YOUR 1939 DUES ARE NOT PAID,  
THIS IS THE LAST ISSUE OF  
THE JOURNAL  
THAT WILL BE SENT TO YOU.

## Fort Wayne Convention

### HOTELS

The Committee on Hotels is able to assure the members of the Indiana State Medical Association almost any type of hotel accommodations that they desire for the state meeting in Fort Wayne next October. The managers of the various hotels have been cooperative in submitting rate schedules and have submitted rates that are reasonable and in no way excessive. A copy of the rate schedule has been tabulated and will be published at a later date in *THE JOURNAL*.

Fort Wayne is well supplied with hotels, and we make no apologies when we say good hotels. There are available some twelve hundred rooms, both single and double, with and without baths, and suites. Our hotels are under aggressive managements and the facilities offered in the way of banquet halls, ballrooms, meeting rooms, private dining rooms, hospitable lobbies, and cocktail lounges are comparable to those of much larger cities. The cuisine has been brought to a high degree of perfection by competitive efforts, and is worthy of the most discriminating palates.

The Committee in working with the various hotel managers has found them all eager to do their part in playing host to the members of the Indiana State Medical Association at the coming state meeting.

Reservations will be made in the order in which they are received, and of course the choice will go to those who make their reservations first.

L. S. McKEEMAN, M.D., *Chairman,*  
Hotel Committee.

### ABSTRACT

#### HARMFUL EFFECTS OF ALCOHOL ARE NOT ABOLISHED BY COFFEE

The assumption that the drinking of coffee can abolish the harmful effects of alcoholic beverages has been discredited by recent experiments in Germany, the regular Berlin correspondent of *The Journal of the American Medical Association* reports in the April 1 issue.

Professor Dr. Mueller, director of the Institute of Forensic Medicine of Heidelberg University, found no change in the alcoholic content of the blood of persons who drank substantial quantities of beer and then partook of very strong coffee.

Fifteen to thirty minutes after drinking the coffee the subjects no longer felt fatigued, the gait was steadier and indistinct speech had disappeared. However, later on they had a pronounced feeling of relaxation and uncertainty, which rendered them unfit for further experimentation. The drinking of coffee produced only brief recovery, and if the person was accustomed to coffee, the sobering effect was greatly diminished.

"One can by no means assume the responsibility for permitting drivers of motor vehicles to indulge freely in alcoholic beverages on the assumption that they can be sobered by subsequent drinking of coffee," the Berlin correspondent says.



## SOCIETIES AND INSTITUTIONS

### EXECUTIVE COMMITTEE INDIANA STATE MEDICAL ASSOCIATION

May 7, 1939.

Roll call showed the following present: C. A. Nafe, M. D., chairman; C. H. McCaskey, M. D.; Karl Ruddell, M. D.; E. M. VanBuskirk, M. D.; M. A. Austin, M. D.; A. F. Weyerbacher, M. D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Luncheon guests: N. K. Forster, M. D., chairman, and W. U. Kennedy, M. D., and W. C. McFadden, M. D., members of the Permanent Study Committee on Health Insurance and National Medical Situation.

The statements of Receipts and Expenditures for April for the Association committees and THE JOURNAL were approved.

#### Membership Report

Number of members on April 30, 1939-----	2,946
(91 hon. mems.)	
Number of members on April 30, 1938-----	2,851
Gain over last year-----	95
Number of members Dec. 31, 1938-----	3,086

#### Treasurer's Office

It was the opinion of Mr. Stump, attorney, that there is no reason to keep any canceled checks longer than six years and that checks older than six years can be destroyed.

#### 1939 Annual Session at Fort Wayne

*Commercial exhibit:* 29 spaces are sold; 14 spaces to be sold.

*Scientific exhibit.* The placing of the scientific exhibits has not yet been determined. It probably will be necessary for Dr. C. G. Culbertson, chairman of the Committee on Scientific Exhibit, and the executive secretary to make a trip to Fort Wayne sometime during the next month, meet with the local scientific exhibit committee, and decide upon the housing of these exhibits.

#### *Scientific program.*

The delegates from the Indiana State Medical Association to the American Medical Association are ready to invite the president-elect of the A. M. A. who will be selected at the St. Louis meeting to attend the Indiana State Medical Association meeting at Fort Wayne. Special invitation will be given him to attend the annual banquet to be held Wednesday evening, October 11.

Nothing heard from the Indiana Academy of Pediatrics in regard to filling of place on the program left vacant by the Section on Ophthalmology and Otolaryngology. Although there will be no Section on Ophthalmology and Otolaryngology meeting, a specialist in ophthalmology and otolaryngology is to have a place on the program for the general meeting.

The following resolution in regard to ophthalmia neonatorum prevention is to be presented to the House of Delegates:

"Be it resolved by the Indiana State Medical Association, recognizing the high incidence of ophthalmia neonatorum in Indiana, that the following recommendations to reduce the incidence of this disease and so conserve vision be recommended to the Indiana State Board of Health; and legislation to strengthen the Ophthalmia Neonatorum Law be recommended to the next session of the Indiana State Legislature; and if passed, to be taken by the delegates of the Indiana State Medical Association and asked to be adopted by the American Medical Association.

"1. The question on the birth certificate, 'Were precautions taken against ophthalmia neonatorum'

to be changed to read, 'What preventive for ophthalmia neonatorum did you use? If none, state the reason.'

- "2. The legislation should specify that only a prophylactic agent approved by the State Board of Health shall be used.
- "3. The Indiana State Medical Association recommends 1% silver nitrate in beeswax ampoules as a universal prophylactic agent for ophthalmia neonatorum at this time, with the reservation to change this recommendation in the future.
- "4. The Board of Health shall acquaint physicians, individuals and hospitals with this recommendation and see that it is uniformly easily available.
- "5. That the Board of Health shall carry on a campaign of urging the prompt and early reporting of ophthalmia neonatorum as the law now specifies.
- "6. Through the local health officers, the State Board of Health shall ask the prompt reporting of conjunctivitis of the new born from whatever organism, and have jurisdiction over these cases, in investigating and insuring adequate diagnosis and treatment until they are definitely classified as not being ophthalmia neonatorum. The investigation should be a direct responsibility of the State Health Department or assured thereby.
- "7. Urging consultation with oculists in these cases, whenever such consultation is available. Provision for expert ophthalmological and nursing care whenever necessary. These services to be arranged without delay and available also for similar emergency cases occurring at a later age."

#### Legislative, Legal and Social Security Matters

##### National:

Request made of Senator James Murray, chairman of the sub-committee of the Committee on Education and Labor, that a representative of the Indiana State Medical Association be given time to appear before his committee on May 25 or 26 when the Wagner bill will be up for consideration. The Executive Committee decided that Dr. VanBuskirk should represent the State Medical Association, should an invitation be received to have a representative at the hearing.

It is understood that the American Farm Bureau has appeared before the Murray committee and presented its views in regard to the Wagner bill. No one on the Executive Committee was familiar with what the views of the American Farm Bureau are, so the executive secretary was authorized to get in touch with the local Farm Bureau and see if information along that line can be obtained.

Report made that action taken by the State Health Officers Conference held recently in Washington in regard to the Wagner bill was similar to that taken by the House of Delegates of the American Medical Association at its special meeting last fall. The members of the Executive Committee would like to have copies of that resolution when it is obtained.

The Committee discussed the reorganization of the various federal government agencies and its possibilities. The Committee hopes that in the reorganization the United States Public Health Service will not be placed under the control of anyone who has a social service work complex and who would like to relegate the public health service to a mere technical division.

##### Local:

Discussion held in regard to the local situation which developed the idea that irrespective of what action is taken in Washington concerning the Wagner bill, probably no action can be taken in this state until a special or a regular session of the legislature is held.

### Sickness Insurance and Socialized Medicine

The members of the Executive Committee have yet to submit their statements which are to be compiled into a concise survey of the reasons why socialized medicine is not the answer in America.

### Farm Security Administration

Word has been received by the Executive Committee that in most cases the Farm Security Administration program has not been accepted by local county medical societies.

### The "Indiana Plan"

Everything is set for the Delaware-Blackford County Medical Society display at the American Medical Association meeting. The attention of the Committee was directed to the newspaper publicity, the scrapbook on the "Indiana Plan" and the diagram of the display which has been arranged by J. H. Glone who constructed the "Two Birds with One Stone" display.

### Organization Matters

*Suggested change in By-Laws.* In accordance with instructions of the Executive Committee the following resolution was prepared by Albert Stump suggesting a change in the By-Laws so that joint societies may have a delegate for each county:

"BE IT RESOLVED That Chapter IV, Section 2, of the By-Laws of the Indiana State Medical Association be amended by striking out the period after the word 'delegate,' in line 8 of the said Section, and substituting a comma therefor, and then by adding after the comma the following:

'except that where a component society is made up of physicians of more than one county, each county shall be entitled to at least one delegate to be selected by the physicians residing in such county.'"

*Suggested change in Constitution.* The attorney for the Association is to submit a suggested change in the Constitution in regard to the purposes of the Association at the next meeting of the Committee.

Following is a list of district meetings which have been held or will be held this spring which have been attended or will be attended by the officers of the State Medical Association:

May 3—Third District—Huntingburg.  
May 5—Fifth District—Terre Haute.  
May 10—Eleventh District—Peru.  
May 11—Ninth District—Lebanon.  
May 23—Twelfth District—Decatur.  
May 24—Second District—Bloomington.  
May 25—Fourth District—Columbus.  
June 7—Sixth District—Connersville.  
June 8—First District—Princeton.

Information given the Committee that the Lake County Medical Society has formed a medical business bureau.

Upon the motion of Dr. Austin, seconded by Dr. Van-Buskirk, the Committee approved making application for affiliate fellowship in the American Medical Association of Dr. C. E. Laughlin of Evansville who is an honorary member of the State Association.

### State Board of Health

Newspaper article brought to the attention of the Committee stating that Huntingburg had been chosen as a typical southern Indiana community for a tuberculosis study that is to be carried on by the United States Public Health Service. According to the article the study is to be made in cooperation with the Dubois County Medical Society and the State Health Department.

The attention of the Committee was directed to the fact that Ohio at the present time is considering a bill in its legislature to reorganize the State Board of Health.

Comments that appeared in the press concerning the present situation in regard to the administration of

pneumonia serum and sulfapyridine brought to the attention of the Committee.

### Group Hospitalization and Voluntary Health Insurance

During the meeting of the Executive Committee the Permanent Study Committee on Health Insurance and National Medical Situation held its meeting and at the conclusion presented the following brief report to the Executive Committee:

#### *"Report of the Permanent Study Committee on Health Insurance and National Medical Situation"*

"1. Your Committee recommends the adoption of a plan of hospital and medical care which embodies cooperation with an established insurance company to be hereafter selected.

"2. We further recommend that any plan to be hereafter adopted shall include such safeguards and adequate provisions as may be needed to protect alike the interests of all concerned.

"3. We further recommend that such contract shall provide for direct payments, through an assignment clause, to those supplying services.

"4. Your Committee recognizes the necessity that the services extended beneficiaries under such a policy shall be rendered by members in good standing of the Indiana State Medical Association, and hospitals having reputable ethical standing.

"We are not unaware that such a demand raises the possibility of criticism from certain sources, but for the successful operation of such a plan we believe it to be imperative.

"Signed,

N. K. Forster, Chairman.

W. C. McFadden.

Except as to last clause

W. U. Kennedy."

The Executive Committee moved that this condensed report be accepted and studied along with an additional suggestion offered by Mr. Stump in regard to the formation of a group hospitalization organization in order to test the validity of the present insurance laws concerning such an organization. Mr. Stump was instructed by the Committee to place his suggestion in writing in order that it might be sent to the various members of the Executive Committee and the Permanent Study Committee on Health Insurance and National Medical Situation.

Other points discussed by the Committee follow:

- Meeting of the Tri-State Hospital Assembly at Chicago, May 3, 4 and 5, where discussion of group hospitalization was on the program. Committee members are to obtain, if possible, information concerning any action taken by that assembly in regard to group hospitalization.
- Insurance conference to be held at Indiana University the week of May 14 is to devote one period to the subject of group hospitalization and medical service plans.
- Various companies writing commercial health insurance are entering the Indiana field, among these companies being the Business Men's Assurance Company of Kansas City. Curtis H. Longsdorf is attempting to organize a company in Indiana.

### Venereal Disease Control

The corrected copy of the report of the Committee on Syphilis Control of the Indiana State Medical Association was brought to the attention of the Committee and the Committee authorized Dr. Weyerbacher to look over the report and make his recommendations concerning it at the next meeting of the Committee.

### Postgraduate

The Committee on Medical Education and Hospitals has authorized a midsummer postgraduate course to be held in southern Indiana as a trial. The executive secretary is to spend one or two weeks contacting the



individual physicians in that part of the state and arousing their interest in the course which is to be held in Evansville. A letter has been sent to the councilor of the first district and to the secretary of the Vanderburgh County Medical Society informing them of the proposed course and asking that the Vanderburgh County Medical Society act as host for the meeting jointly with the State Medical Association. The Committee suggests that the three hospitals in Evansville participate actively in this program.

The Executive Committee went on record as having no authority to pay for any traveling expenses of members of the postgraduate committee in attending committee meetings as no funds were set aside by the Budget Committee specifically to cover such expenses and such funds can be appropriated to pay traveling expenses of any specific committee only by action of the Council.

#### Welfare Department

Report made upon conference with Dr. H. J. Norton and Dr. George C. Stevens, director of the Division of Medical Care of the Welfare Department, and the Executive Committee was of the opinion that Dr. Herman Baker, chairman of the Liaison Committee with the Indiana State Department of Public Welfare, should call a meeting within the near future to discuss the question of medical relationships with Mr. Thurman Gottschalk, head of the Welfare Department.

Report on the meeting of the Crippled Children's Committee held May 4. It is understood that the Crippled Children's Bureau authorized the establishment of an orthopedic center at Fort Wayne in addition to the centers already established at Indianapolis and South Bend.

#### Medical Economics

Letter received from M. R. Ray, State Compensation Officer of the WPA, requesting a list from each local county medical society of "physicians who are qualified and willing to handle Works Progress Administration injury cases in order that the names of these doctors may be placed on each project in their community and the distribution of cases made as equitably as possible among those doctors listed." The Committee ordered that a copy of this letter be sent to each county medical society secretary asking the secretaries to take this matter up with their local societies and suggesting that each society comply with Mr. Ray's request.

Complaint in regard to charges made by an Indianapolis physician brought to the attention of the Committee. The complaint was to be forwarded to the local county medical society for action.

Invitation received by the officers of the State Medical Association to attend the meeting of the Indiana State Dental Association May 15 to 17.

#### Government Case against Dr. Kaadt and Bern Grubb

The Committee received information concerning the action of the Government against Dr. Charles F. Kaadt, South Whitley, and Bern Grubb, president of the Lafayette Pharmaceutical Company, Lafayette.

#### Appointment to Red Cross Advisory Committee

Word received that Dr. Herman Baker had been appointed a member of the Advisory Committee of the American Red Cross. Instructions given by the Committee to congratulate Doctor Baker upon this appointment which the Committee feels is a distinct compliment to the Indiana State Medical Association.

#### The Journal

At its last meeting the Executive Committee went on record against accepting any further advertisements from collection agencies until further instructions.

*Cards in professional directory carrying the names of deceased physicians.* The Committee felt that this matter of how long the name of a physician should be carried on a card in THE JOURNAL and on his door after his death should be taken up and discussed by the Council at its next meeting.

#### ELEVENTH DISTRICT MEDICAL SOCIETY

Dr. Eva Kennedy of Camden was elected president of the Eleventh District Medical Association at the meeting held in Peru, May tenth. Dr. O. G. Brubaker was re-elected secretary-treasurer. The fall meeting of the organization will be held in Marion.

#### UNION DISTRICT MEDICAL SOCIETY

The one hundred forty-second semi-annual meeting of the Union District Medical Association was held at Eaton, Ohio, April twenty-seventh. Morning and afternoon sessions were held in the courthouse.

Dr. Clyde Shinkle of Cincinnati presented a paper on the shock treatment of dementia praecox. Other talks were given by Mr. Thomas Hendricks, Indianapolis; Dr. Harry P. Ross, Richmond; Dr. Robert M. Dearmin, Indianapolis. Attendance numbered forty. The fall meeting will be held in Richmond, October 26.

#### BUREAU OF PUBLICITY

June 4, 1938.

Meeting called to order at 4:00 p. m.

Present: F. M. Gastineau, M.D.; C. F. Thompson, M.D., and T. A. Hendricks, executive secretary.

Release on the "Indiana Plan" prepared for publication in the papers of June 10.

The Bureau approved the pamphlet entitled, "Two Birds with One Stone," which was prepared for distribution at the annual session of the American Medical Association in San Francisco.

Report on medical meeting:

April 20—Parke-Vermillion County Medical Society, Clinton. "Diphtheria—Prophylaxis, Diagnosis and Treatment." (15 present.)

Letter and resolution from the president of the Woman's Auxiliary to the Indiana State Medical Association presented to the Bureau for study and action.

Letter received from a physician regarding the ethics of the use of a neon sign by a physician. This is only one of several requests that have come to the Bureau in regard to this question. The Bureau went on record as follows concerning this question:

A great deal depends upon the size, the location and the prominence of such signs. A sign does not have to be a neon sign to be in bad taste. Lettering on an office window or a door which is over-conspicuous in size or in coloring is bad taste and hence unethical. If all the physicians in a town use a sign of the same size it would not be unethical, but if one physician used a neon sign and the other did not use neon signs, that would give undue prominence to one physician's name and hence the Bureau feels that the use of a neon sign in this instance would be a breach of local custom and therefore unethical.

A copy of the Woman's Auxiliary section to the *Kentucky Medical Journal* for April, 1938, in regard to Jane Todd Crawford upon whom Dr. Ephraim McDowell performed the first operation in the world for ovarian tumor was brought to the attention of the Bureau. The grave of Jane Todd Crawford is near Sullivan, Indiana.

July 30, 1938.

Meeting called to order at 5:15 p. m., at the home of Dr. W. N. Wishard, 2050 North Delaware Street, Indianapolis.

Present: W. N. Wishard, M.D., chairman; F. M. Gastineau, M.D.; C. F. Thompson, M.D., and T. A. Hendricks, executive secretary.

Request for speaker:

August 3—Rotary Club, Newcastle, Ind.

A report upon the National Health Conference held in Washington July 19 to 21, 1938, was made to the Bureau. For details in regard to this conference see the July 30, 1938 issue of *The Journal of the American Medical Association* and the August issue of THE JOURNAL of the Indiana State Medical Association.

The Bureau approved the resolution of the Woman's Auxiliary which reads as follows:

"WHEREAS, The American Medical Association has endorsed the movement known as the Woman's Auxiliary to the medical societies of the several states, thus recognizing the great value of this adjunct to the state medical organizations; and

"WHEREAS, The wives of the practicing physicians are well qualified to influence the promotion of health programs, to secure approved speakers for such events, to arrange radio talks and to approve the preparation of press notices; and

"WHEREAS, Informed of the problem of socialized medicine, they can, through membership in clubs and civic organizations, refute the arguments of lay women in such matters, be alert to and combat adverse propaganda, influence passing of legislation favorable to organized medicine as demonstrated in the successful opposition to the activities of irregular cultists; and

"WHEREAS, They have done much to increase the circulation of *Hygæa* and other publications of the American Medical Association; and

"WHEREAS, They have been instrumental in effecting closer cooperation between various medical groups; and

"WHEREAS, They have in all instances operated under the supervision and guidance of the state medical societies and are contributing materially to the work of such societies; and

"WHEREAS, Indiana, with some 2,900 members of the state medical society, has only 421 members of the Woman's Auxiliary and is, therefore, poorly organized as compared more particularly with Pennsylvania, Michigan, Texas, West Virginia and others, due to the fact that the Auxiliary to the Indiana State Medical Association has never been officially recognized by that body and, therefore, has not the privilege of an accredited branch of the Indiana State Medical Association, but must wait for a request to enter any particular county for the purpose of organizing an active unit; therefore,

"RESOLVED, That the organization known as the Woman's Auxiliary to the Indiana State Medical Association hereby petitions the House of Delegates of the Indiana State Medical Association for official recognition and that the Woman's Auxiliary be privileged to approach the county medical societies for the purpose of establishing active units therein."

The Bureau approved the sending of a bulletin by the Woman's Auxiliary to every member of the Auxiliary and requested the Auxiliary to make an estimate as to what this might cost.

## INDIANA STATE BOARD OF HEALTH

### Bureau of Communicable Disease

#### Monthly Report, April, 1939

Diseases	April 1939	Mar. 1939	Feb. 1939	April 1938	April 1937
Tuberculosis .....	240	132	127	228	163
Chickenpox .....	386	406	500	311	451
Measles .....	100	56	44	5745	1209
Scarlet Fever .....	961	817	1005	597	1030
Smallpox .....	220	198	449	351	55
Typhoid Fever .....	6	4	11	29	3
Whooping Cough .....	245	128	101	128	357
Diphtheria .....	46	55	106	95	37
Influenza .....	330	1287	1490	48	473
Pneumonia .....	132	159	111	90	145
Mumps .....	270	247	264	131	278
Meningitis .....	4	3	2	6	18
Trachoma .....	2	1	0	15	0
Undulant Fever .....	5	3	0	11	0
Tularemia .....	1	0	7	2	0
Septic Sore Throat.....	2	0	0	0	0

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## WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

### Vacation Verities

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I've traded my meat for a crust of bread;  
I've changed my book for a sapling cane,  
And I'm off to the end of the world again."*

—DAVID GRAYSON.

### Ft. Wayne Auxiliary Organized

Early in May, the Woman's Auxiliary to the Allen County Medical Society was organized. Mrs. Herbert A. Ray was named president; Mrs. E. A. King, who will serve as program chairman for this year, was named president-elect (to take office in May, 1940); Mrs. Eugene Bulson was made first vice-president; Mrs. O. J. Miller, second vice-president; Mrs. Edward Schlegel, third vice-president; Mrs. R. W. Terrill, recording secretary; Mrs. Charles Cooney, corresponding secretary, and Mrs. W. B. Rice, treasurer.

It was decided to have no fewer than four meetings a year, to be held alternately in the afternoons and evenings of the third Tuesday of the months designated.

### We Welcome Ft. Wayne Auxiliary

An auxiliary is not a robbery of home; it involves no costly expenditure, no waste of time; it is no wild scramble for excitement; it is a calm and deliberate study of the ills of the mind and body, under supervision of the County Medical Society.

The social contacts will prepare the members with redoubled vigor and courage to battle for health education. It may be a university for the training of kindly feelings where we can enjoy the sweet of life as it comes up, while we laugh at the bitter.

We anticipate inspiration and real leadership from your ranks. Again we welcome you!

Mrs. H. A. Ray gave a luncheon at her home, May 3, for the officers of the Ft. Wayne Auxiliary. Plans were made for a membership tea and garden party, June 15. Regular meetings begin in October.

Dr. Van Buskirk has appointed the following ladies as entertainment committee for the State Convention in Ft. Wayne October 10-12: Mrs. H. V. Blosser, Mrs. D. F. Cameron, Mrs. E. L. Cartwright, Mrs. L. W. Elston, Mrs. R. L. Hane, Mrs. M. R. Lohman, Mrs. H. L. Murdock, Mrs. L. T. Rawles, Mrs. A. J. Sparks, Mrs. E. Van Buskirk, Chairman.

### Madison County—

A meeting was held at the home of Mrs. L. F. Hunt. Mr. William Tover gave a review of the book, "Where There is no Peace," by Hamilton Armstrong.

### Delaware-Blackford Counties—

Hostesses at the last meeting were Mrs. J. H. Bowles, Mrs. L. R. Mason, Mrs. Robert Hill, Mrs. E. F. Tindol, and Mrs. C. G. Rea.

### Marion County—

The last meeting was held May 5 at the Woman's Department Club. New Officers were elected: President, Mrs. Harry VanOsdol; President-Elect, Mrs. Fred Gifford; First Vice-President, Mrs. Frank Gastineau; Second Vice-President, Mrs. Fred Pettijohn; Third Vice-President, Mrs. J. R. Swan; Treasurer, Mrs. C. E. Cox; Recording Secretary, Mrs. Frank Ramsey; Publicity Secretary, Mrs. Dudley Pfaff.

It was voted to send \$10 to Indianapolis chapter for cancer control; also, to pay 5 cent per capita for postage on "Hoosier News Letter."

A musicale program given by Arthur Jordan Conservatory included Miss Margaret James, Miss Jane Tomerlin, Ferrell Scott, and Virgil Phemister, with Mrs. Wayne Ritter at the piano.

St. Joseph County sent \$3.85 for "Hoosier News Letter." (77 paid-up members.)

Topic for June: Insect-borne Diseases.

All reports of meetings should be in by the 10th of June.

Mrs. W. F. HUGHES, *Chairman*.



## LOCAL SOCIETIES

**Bartholomew County Medical Society** held a dinner meeting April twenty-sixth, with fourteen in attendance.

**Cass County Medical Society** met at Logansport, April twenty-first. Dr. E. W. Bailey talked on "The Attitude Toward Socialized Medicine in Europe and Opportunities for Post Graduate Study."

**Clay County Medical Society** met at Brazil, May second, for a general discussion of education of the laity.

**Davless-Martin County Medical Society** held a meeting at Shoals, April twenty-fifth. The program was an open discussion on pneumonia. Eighteen physicians attended.

**Dearborn-Ohio County Medical Society** met at Dillsboro Sanitarium, April twenty-seventh, to hear Dr. Hugh MacMillen of Cincinnati, Ohio, talk on "Deep Abscesses of the Neck of Dental Origin." Attendance numbered twenty-five. This was a joint meeting with the dentists—an annual get-together.

**Delaware-Blackford County Medical Society** met at the Hotel Roberts in Muncie, April eighteenth, to hear Dr. P. D. Moore talk on "X-ray Treatment of Cancer" and Dr. W. C. Moore talk on "Surgical Treatment of Cancer." Both papers were discussed by Dr. William Quick. Attendance numbered thirty-five.

At the meeting held May second, in the Hartford Hotel, Hartford City, Dr. Guy Owsley talked on "Hay Fever and Asthma," and Dr. Forrest Kirshman presented a paper on "Hives, Urticaria, Angioneurotic Edema, and Eczema." Attendance numbered thirty.

**Fort Wayne Medical Society** met at the Fort Wayne Chamber of Commerce Building, April eighteenth, for a dinner meeting. Guest speaker was Dr. William B. Wartman of Cleveland, Ohio, whose subject was "The History of Cancer." Attendance was forty-nine.

At the April twenty-fifth meeting of the society, Dr. Paul A. Stier of Fort Wayne talked on "Treatment of Pneumonia with Sulfapyridine." Attendance numbered fifty-one. Dr. H. B. Bundrant was elected to membership.

Dr. E. H. Wilson of Columbus was guest speaker for the meeting held May second at the Chamber of Commerce Building. His subject was "Treatment of Fractures and Injuries in the Region of the Shoulder Joint." Attendance numbered fifty-seven.

**Greene County Medical Society** members met at the Freeman-County Hospital, Linton, May eleventh. Dr. Bennett Kraft of Indianapolis talked on "Diseases of Allergy." Dinner was served by the nursing staff of the hospital. Attendance numbered sixteen.

**Hendricks County Medical Society** members met at Crawley Hall, Danville, April twenty-seventh. Dr. William E. Gabe of Indianapolis was the guest speaker, his subject being "Abdominal Injuries—Especially Those Due to Automobile Accidents."

**Hamilton County Medical Society** members attended a meeting at Sheridan, April eleventh, when Dr. Russell Henry of Indianapolis was the speaker of the evening. Doctor Henry discussed tuberculosis and its treatment by a general practitioner.

*Continued on next page*

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\$10,000.00 accidental death	For
\$50.00 weekly indemnity, accident and sickness	\$66.00 per year

\$15,000.00 accidental death	For
\$75.00 weekly indemnity, accident and sickness	\$99.00 per year

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*Continued from page xix*

**Indianapolis (Marion County) Medical Society** met at the Indianapolis Athletic Club, May eleventh, to hear Dr. William Kerr of San Francisco, California, talk on "Early Diagnosis of Coronary Disease."

**Jasper-Newton County Medical Society** held a dinner meeting at the Hoosier Inn, Rensselaer, April twenty-seventh. Following the dinner, a scientific program was presented at the Jasper County Hospital in Rensselaer. Dr. J. O. Ritchey of Indianapolis conducted a medical clinic on six patients presented by members of the society. Attendance numbered fifteen.

**Knox County Medical Society** members met at the Jewel Cafe in Vincennes, April twenty-fifth. Dr. Leon L. Blum of Terre Haute talked on "Blood Dyscrasias." Nineteen members and two guests were present.

**La Porte County Medical Society** met at La Porte, April twentieth. Dr. Geza de Takats of Chicago talked on "Treatment of Varicose Veins." Attendance numbered thirty-two.

**Marshall County Medical Society** members met at the Hi-Way Inn, Plymouth, May third, for a noon meeting. Dr. Milo Miller of South Bend talked on "Allergy." Attendance numbered twenty-six. Marshall County Medical Society was host to eleven members of the Kosciusko County society.

**Miami County Medical Society** held a meeting at Dukes Miami County Hospital, April twenty-eighth. Dr. J. W. Hofmann of Indianapolis spoke on "Cancer—Diagnosis and Treatment." Attendance numbered twenty.

**Montgomery County Medical Society** members met at Culver Hospital, Crawfordsville, May twentieth, to hear Dr. C. J. Clark of Indianapolis talk on "The Sulfapyridine Treatment of Pneumonia." Attendance was twenty-three.

**Morgan County Medical Society** held a meeting at Memorial Hospital, April nineteenth, for a discussion of the Farm Security Administration proposal. The proposal was rejected by unanimous vote, including the proxy vote of absent members. Attendance numbered twelve.

**Muncie Academy of Medicine** met at the Hotel Roberts, Muncie, May ninth. Dr. Charles Slocumb, of the Mayo Clinic, spoke on "Diagnosis and Treatment of Commoner Types of Rheumatism."

**Northeastern Indiana Academy of Medicine** met at the Kendall Hotel in Kendallville, April twenty-seventh, for a dinner meeting. Dr. E. O. Asher, of New Augusta, was the speaker, his subject being "Gynecological Observations Made by Vaginal Examinations."

**Putnam County Medical Society** met at Greencastle, May eleventh. Dr. Byron Rust of Indianapolis was guest speaker.

**Randolph County Medical Society** met in Winchester at the Randolph County Hospital, April tenth. Dr. Russell Hippensteel, of Indianapolis, was the guest speaker, his subject being "Pediatrics."

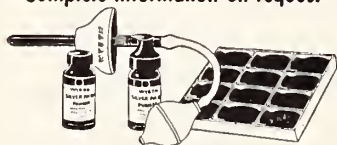
**St. Joseph County Medical Society** held its regular meeting in the Jefferson Plaza, South Bend, May ninth, with forty in attendance. Dr. Robert Henderson talked on "Some Impressions of the St. Joseph County Medical Society."

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**Wabash County Medical Society** met at the county hospital in Wabash, May third, for a dinner meeting. Dr. J. J. Hayes and Dr. B. W. Rhamy of Fort Wayne were guest speakers, their subjects dealing with the relation of the pathologist to general practice. Eighteen were present.

**Wayne-Union County Medical Society** members met at the Richmond-Leland Hotel in Richmond, May eleventh, to hear Dr. George Garceau of Indianapolis talk on "Diagnosis and Treatment of Knee Injuries." Nineteen were present.

**TEXTBOOK OF APPLIED MICROBIOLOGY AND PATHOLOGY.** By Thurman B. Rice, A.M., M.D., professor of bacteriology and public health, Indiana University School of Medicine and Training School for Nurses. Second edition of "Applied Bacteriology." 271 pages with 78 illustrations. Fabric cover. Price \$2.50. The Macmillan Company, New York, 1939.

**ENGLISH, GERMAN, FRENCH, ITALIAN, SPANISH MEDICAL VOCABULARY AND PHRASES.** By Joseph S. F. Marie. Foreword by Chevallier Jackson, M.D., Sc.D., honorary professor of bronchoesophagology, Temple University. 358 pages. Washable fabric cover. Price \$3.00. P. Blakiston's Son and Co., Inc., Philadelphia, 1939.

## BOOKS

### BOOKS RECEIVED

**SLEEP YOUR LIFE'S ONE THIRD.** By Maurice Chideckel, M.D., with a foreword by Robert V. Seliger, M.D., visiting psychiatrist, Johns Hopkins Hospital. 183 pages. Cloth. Price \$2.00. The Saravan House, New York, 1939.

**PRACTICAL DERMATOLOGY AND SYPHILIS.** By Harry M. Robinson, M.D., professor of Dermatology and director of the syphilis clinic, University of Maryland, School of Medicine; instructor in medicine, Syphilis Division, Johns Hopkins Medical School. 397 pages with 429 illustrations. Washable fabric cover. Price \$4.50. P. Blakiston's Son & Co., Inc., Philadelphia, 1939.

**CLINICAL BIOCHEMISTRY.** By Abraham Cantarow, M.D., Associate professor of Medicine, Jefferson Medical College; and Max Trumper, Ph.D., clinical chemist and toxicologist, formerly in charge of the laboratories of biochemistry of the Jefferson Medical College and Hospital; foreword by Hobart A. Reimann, M.D., professor of medicine, Jefferson Medical College. Second edition, revised. 666 pages. Cloth. Price, \$6.00. W. B. Saunders Company, Philadelphia and London, 1939.

**GONORRHEA IN THE MALE AND FEMALE.** A book for practitioners. By P. S. Pelouze, M.D., assistant professor of urology, University of Pennsylvania. Third edition, thoroughly revised. 439 pages, 144 illustrations. Cloth. Price, \$6.00. W. B. Saunders Company, Philadelphia and London, 1939.

## ABSTRACTS

### REPORT ON STUDIES OF RECOVERIES FROM RHEUMATIC HEART AILMENT

Recovery from acute rheumatic inflammation of heart membrane (rheumatic pericarditis) was so complete that years later there were no signs of heart disease in 36 per cent of those patients who survived their initial infection, Edward Massie, M.D., St. Louis, and Samuel A. Levine, M.D., Boston, report in *The Journal of the American Medical Association* for April 1.

The authors' studies were based on the ultimate outcome of 135 patients with acute rheumatic pericarditis. "Although the condition is frequently seen and has often been studied during its acute phases, the difficulty of tracing and following the same persons for long periods after the immediate recovery has occurred probably accounts for the lack of careful observations concerning its ultimate outcome," the authors state.

During the acute attack, 110 of the patients had an accompanying arthritis, one had chorea (St. Vitus' dance) and in twenty-four the involvement of the heart was the main evidence of rheumatic activity.

Twenty-two patients died of the acute infection, an immediate mortality of 16.3 per cent.

Follow-up data were obtained, after an average interval of seven years (with a range of from one to seventeen years), on eighty-two of the 113 patients who survived their first attack.

Twenty-five patients died after recovery from the initial infection at an average interval of 6.7 years (from six months to seventeen years).

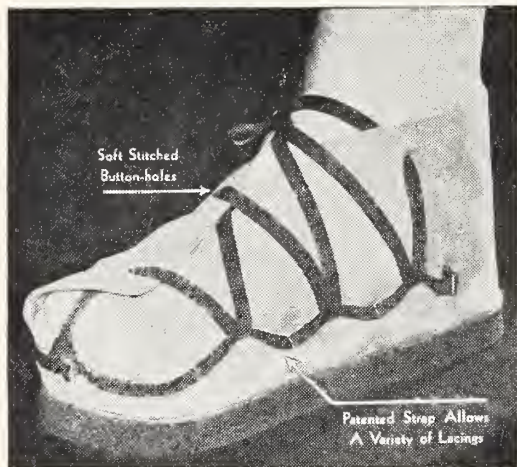
*Continued on page xxii*

## COMMERCIAL ANNOUNCEMENTS

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*Continued from page xxi*

Fifty-two of the eighty-two patients who were contacted were in satisfactory health and were able to carry on normal activity. Thirty-six per cent of this group of eighty-two patients had no evidence of organic heart disease. An additional 14 per cent had only impaired function of the heart valves. In the remaining cases the valves of the aorta were involved more often than in an average group of rheumatic patients.

A comparison of the examinations made before, immediately after and many years following the attack of acute pericarditis showed that the heart valves were not involved further unless another attack of rheumatic fever intervened. The extent of injury to the valves of the heart determines the subsequent outcome.

### IMMINENT SPONTANEOUS FALL IN SYPHILIS RATE PREDICTED

That the groundwork has been laid for an imminent spontaneous fall in the incidence of syphilis is indicated by the high incidence of the disease which prevails in the age group who acquired their syphilis before the advent of the discovery of the spirochete (1905), the development of important arsenic and bismuth preparations and the knowledge of the serologic tests, G. H. Hansmann, M.D., Milwaukee, declares in *The Journal of the American Medical Association* for May 6.

He points out that elderly persons who contracted their syphilis thirty or forty years ago and who received no or very inadequate treatment will presently drop out of the picture and consequently there will be an appreciable spontaneous drop in the incidence of syphilis.

Evaluations of the prevalence of syphilis are often misleading, Dr. Hansmann believes. "There can be no intelligent discussion of syphilis on the basis of the number of serologic tests per thousand of population," he contends. "The least information for an intelligent discussion would appear to be the number of individuals represented by the tests per given area, the personal and the economic consequences of the disease, what the treatment has to offer the individual, and the functional and anatomic integrity of the body resulting from causes other than syphilis and the inadvertent serious consequences of the treatment.

"A positive serologic test for syphilis is usually taken as a signal to turn on the spigots of antisypilitic treatment. When the marked divergence between positive tests and structural evidences of syphilis as studied clinically, by x-ray and at death is viewed, thorough medical men must often wonder whether we do not have too implicit faith in a positive serologic test for syphilis.

"We must bear in mind that a person who has a positive serologic test may be actually or concurrently suffering from any of the other diseases which may be interpreted as syphilis because of a positive serologic test. Experience at postmortem examination has taught me that if the brain, cardiovascular system, liver, hematopoietic organs (those concerned with formation of the blood) or kidney is vulnerable or actually diseased, the consequences of antisypilitic treatment are too often grave. Antisypilitic treatment is therefore not to be undertaken lightly."

### CANCER NOT TRANSMISSIBLE

There is no possibility and hence no danger of the transferring of cancer from cancerous cattle to human beings through eating meat from such animals, *The Journal of the American Medical Association* for April 15 says. Cancer is not transmissible, even by transplantation, from one mammalian species to another, e. g., from cattle to man. Human cancer is not contagious.





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ABSTRACTS—Continued

**SPOTTED FEVER**

Although only about one tick in three hundred, even in the most severely infected areas, is capable of transmitting spotted fever to man, the disease is potentially present wherever these insects are found.

For a decade, according to a statement on Rocky Mountain spotted fever issued in May by the United States Public Health Service, the disease has been recognized along the eastern coast and "has now been diagnosed as far north as Massachusetts and as far south as Georgia." The increasing number of cases reported each year to the Service probably does not represent a spread but an increasing recognition, it was said.

In order to disseminate more widely such information as the proper handling of ticks, advisability of vaccination, and other prophylactic measures, and by so doing decrease the number of cases, the statement has been prepared by authorities at the National Institute of Health in a handy "catechism" form, answering those questions most commonly asked. These are the principal facts to know concerning ticks and fever, according to the statement.

Spotted fever is acquired by man from the bite of an infected tick. This insect in the east has been given the name *Dermacentor variabilis*, more commonly known as the "dog tick". It is not possible by simple observation to tell whether any given tick is infected. It can be classified as to species by trained personnel, however; but for practical purposes, it is better to consider every tick as dangerous and to remove it from the body as soon as possible. This may be done with the fingers, but a safer method is with forceps, a small piece of cotton or paper, being careful not to crush the tick. The site of the bite should be painted with iodine, and the fingers or forceps dipped in alcohol or thoroughly washed.

Persons exposed to ticks—campers, fishermen, picnickers, children playing in uncleared land—should be examined carefully at least once a day for ticks. It is recommended that all clothing be removed in doing this, and those parts of the body covered with hair, such as the back of the neck and under the arms, be carefully searched. Prompt removal of the insects is one of the most practical and effective means of prophylaxis against the disease, since the ticks must have fed for from six to eight hours before there is much danger of acquiring the fever.

*Continued on page xxiv*

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*Continued from page xxiii*

Since the ticks occur almost everywhere it is probably of little benefit to move from any given area.

Since the disease is contracted from ticks, the only danger in the possession of a dog lies in the fact that it may bring the insects in. They should be removed when found, with forceps.

After one has actually been bitten by an infected tick he may expect a lapse of from four to twelve days before actual onset of the disease. This comes suddenly, often with a chill, rapid rise in temperature, and severe headache. The patient should immediately go to bed and call a doctor. About three to four days after the fever begins there is seen an eruption, flat, pinkish in color, small and distinct, usually first and most prominently noted on the arms and legs. It may later appear over the body—on the face, soles of the feet, and palms of the hands.

Treatment of the disease is limited to non-specific therapy, with nursing care as an important factor. The Public Health Service has discovered and developed a vaccine which, particularly in Montana, has proved to be of value. Its larger advantage is in reducing the number of deaths, which in the east may run as high as twenty percent. Generally speaking, according to the statement, it is impractical to attempt widespread vaccination for a disease which strikes so few people. It must be limited to known infected areas and to those who have been exposed longest to ticks.

There have been occasionally severe reactions to the vaccine; however, a general reaction, somewhat similar to that from typhoid vaccine, is most commonly noted. Since the vaccine is probably of no value after the tick has fed, it should be administered about ten days before expected exposure. Normally, it should be given annually just before or early in the tick season—that is, April and May. It can be secured from one's family physician, to whom it is given free; from a local

health officer through the National Institute of Health in Washington; or from the Public Health Service Station at Hamilton, Montana. However, the Public Health Service does not consider it advisable or practicable to institute widespread prophylactic vaccination in the eastern section of the United States.

#### IMPORTATION OF MOSQUITOES ON AIRCRAFT

Only five live mosquitoes, and none of them of the dangerous species, were captured during the entire 1938 season by United States Public Health Service entomologists in their routine air craft quarantine activities at Miami, Florida.

The inspection of all incoming aircraft from Mexico, South America, the Canal Zone, and West Indies—especially South America—is made primarily for the purpose of detecting the presence of live mosquitoes, particularly *Aedes aegypti*, which might convey yellow fever. As an airport of entry, Miami occupies a significant position with reference to the importation of insect vectors of tropical diseases, and it is important that no new obnoxious mosquito species be allowed to establish themselves in this area. Therefore, careful search is made for them on all planes, and a record kept of all insects found dead or captured alive on these planes.

Disinsectization itself is performed by the airway's employees. Before landing, the plane is sprayed in the air by the steward with a small hand pumpgun charged with a spray fluid. During this time the plane's ventilators are closed and kept so for about ten minutes after spraying. On overnight stops the planes are thoroughly sprayed and closed for the night.

Out of a total of 398 aircraft inspected last year for possible mosquito infestation, 187 were found to harbor dead and live insects of various species. A total of 651 insects was recovered, 166 of them alive; 45 were mosquitoes, but only five were alive. No *Aedes aegypti* were recovered on any of the aircraft, alive or dead.

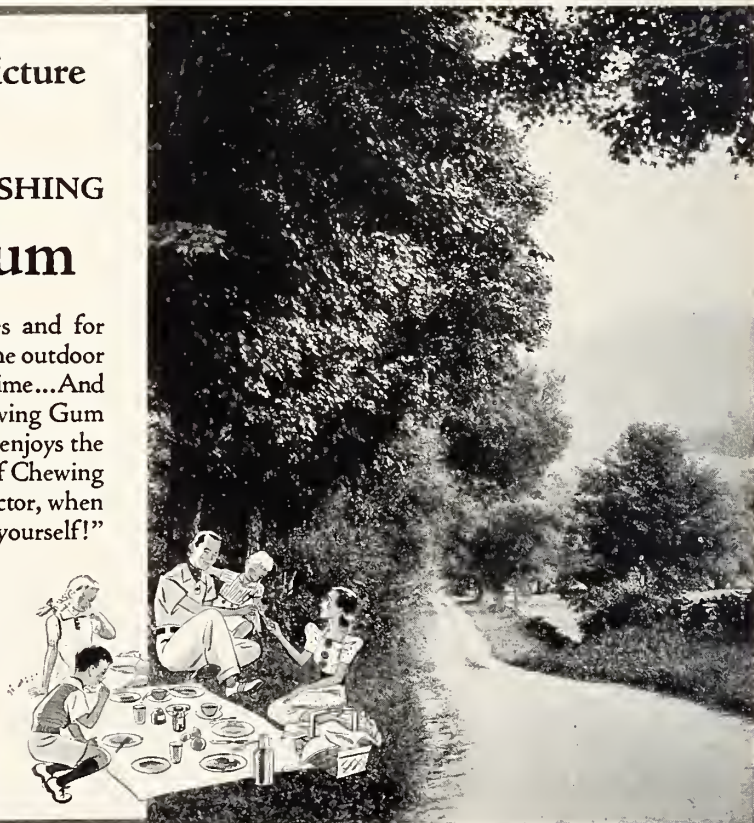
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## CRIPPLED CHILDREN'S SERVICES

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A review of the past year's services offered to needy crippled children by the state and county departments of public welfare reveals that a great amount of progress has been made as compared with the progress made in the fiscal year ended June 30, 1938.

During the past ten months services have been offered through the state and county departments to an unduplicated total of 1,502 crippled children, which is approximately one-sixth of the crippled children in the State of Indiana. Of this number, 996 were seen as out-patients only, 451 received hospital and out-patient service, and 55 of the total number received hospital service only.

This group of children under care has received 6,775 clinic visits, 14,557 days of hospital care, 7,283 days of convalescent-home care, and 4,374 days of foster-home care.

Approximately eighty per cent of this care has been rendered in connection with services offered at the James Whitcomb Riley Hospital, and the remainder, or twenty per cent, has been given in the South Bend hospital center.

In April, 1937, a staff of four orthopedic field nurses inaugurated a field service for crippled children under the supervision of the State Department of Public Welfare. The function of the field nurses is primarily to assist in maintaining close cooperative relationship between hospital staffs and local physicians, nurses, nursing agencies, health organizations, and social agencies; also, they are to assist, teach and demonstrate under medical direction the procedures of physical therapy performances and other orthopedic nursing functions. Orthopedic nurses also render direct nursing service when requested by hospital staff physicians or private physicians in areas where there are no nursing agencies. In the past ten months' period, this group of field nurses has made 1,322 calls in the interest of crippled children.

In August of 1938 a physical therapist was added to the field staff. The field physical therapist has attempted to provide for the performance of physical therapy procedures in the home of the crippled child when such procedures have been recommended by a physician of the hospital staff. The field physical therapist is available to private physicians, nursing organizations, and public health nurses to assist any of these individuals or agencies with physical therapy problems. The field physical therapist works in close cooperation with the field orthopedic nurses to make for adequate performance of necessary physical therapy procedures.

The project for the treatment of cerebral palsy, established with Federal funds at the James Whitcomb Riley Hospital in May of 1937, has been in continuous operation, and during the entire period of operation of this project the staff has given intensive treatment or advice with clinic review service to over three hundred children afflicted with cerebral palsy. It is estimated that this is one-half the number of children afflicted with cerebral palsy in the State of Indiana. The staff of this project consists of two occupational therapists, two physical therapists, one speech pathologist, and one psychologist. Much of the work in this project is in the nature of actual research and many definite procedures as to the treatment of this type of patient are being evolved. During the nine months' period ended March 31, 1939, this project has given 6,418 treatments.

### CLINIC SERVICE

In June of 1938 the last field orthopedic consultation service was conducted. Many children who were seen in the nine orthopedic consultation services conducted by the State Department of Public Welfare, in cooperation with county medical societies, nursing agencies, and county departments of public welfare, were found to be in need of initial

corrective service or to be in need of a continuation of corrective service which had been started and discontinued. Many of these children are now receiving necessary services. Orthopedic consultation service conducted by physicians approved by an official Liaison Committee of the Indiana State Medical Association is available to county medical societies or groups of county medical societies upon request. Findings, diagnoses, and recommendations made by consultants at these clinic services have been forwarded to the family physician in every instance; and whether service was to be rendered by the family physician, obtained through other medical channels, or provided at public cost, was determined by the family physician. The State Department of Public Welfare is anxious to secure requests for the conduction of diagnostic clinic services in the various communities in the interest of crippled children; and the Division of Services for Crippled Children will make available all its facilities to conduct such clinic services sponsored by the various county medical societies of the state.

#### POSTGRADUATE EDUCATION

Provision is made in the Indiana State Plan of Services for Crippled Children for the presentation of symposia concerning the early diagnosis and prevention of crippling. This service will be presented by individuals qualified in their various specialties and is available to the county medical societies of the state upon their express request. The State Department of Public Welfare will cooperate closely with the postgraduate education committee of the Indiana State Medical Association in offering this type of service.

#### FIELD CONSULTATION SERVICE ON A CASE BASIS

On recommendation of the official Liaison Committee of the Indiana State Medical Association, the plan for the next fiscal year incorporates provision for the selection and approval of pediatricians and internists throughout the state who may be utilized in rendering consultant service on a case-basis to physicians requesting such service when confronted with the problem of caring for needy individuals afflicted with acute poliomyelitis or other acute infectious diseases which may result in crippling.

#### LEGISLATIVE CHANGES

An act passed at the last session of the General Assembly known as House Bill 74 (Acts of 1939, Chapter 6, Section 7, Page 9), discussed elsewhere in this issue of *THE JOURNAL*, will result in material changes to the program of services for crippled children as administered by the State Department of Public Welfare in that after July 1, 1939, it will be possible to extend services to needy crippled children to twenty-one (21) years of age by the procedure of placement through the County Department of Public Welfare. Section 7 of this act provides specifically for the placement of crippled children above sixteen (16) years of age and below twenty-one (21) years of age in hospitals of the

Indiana University Medical Center for necessary services. In order that services to crippled children by placement under the Welfare Act of 1936 may be uniformly afforded by the state and county departments of public welfare, the State Board of Public Welfare, by official resolution, has made possible the placement of crippled children up to age twenty-one (21) in any hospital selected and approved by the State Department of Public Welfare.

In order to extend services further, children needing reconstructive or plastic surgery are now included in the definition of a crippled child, which follows:

"A crippled child shall be defined as a child under twenty-one (21) years of age who, from any cause, is deprived of the free and normal use of any of his limbs or who shall be deprived of strength or capability for service due to bone, tendon, joint or fascial deformity caused by accident, birth injury, or disease; neuromuscular affection due to disease, birth injury or other trauma; cicatricial scars which limit motion of extremities; or crippling physical defects, congenital or acquired, that may be benefited by surgical or other medical procedures.

"In addition to the crippling conditions implied in this definition there shall be included all conditions needing reconstructive or plastic surgery, as well as congenital cataract."

Experience has shown in the administration of this program that heretofore certain crippled children who have been bona fide residents of the state have been denied necessary services as a crippled child because certain residence requirements could not be satisfied. New residence requirements determined by the State Department and included in the Plan of Services for Crippled Children for the fiscal year 1939-1940 are herewith quoted:

"In order to be eligible for care and treatment, a crippled child must have resided in this state for a period of at least one year immediately preceding the date of the application for such assistance; or have been born within the state within one year immediately preceding the date of application, and whose mother has resided in the state for at least one year immediately preceding the birth of such child; provided that—in cases where the postponement of treatment might result in permanent impairment or render such treatment less effective—the state and several county departments may waive residence requirements in the securing and granting of services to crippled children residing within the state who are otherwise eligible to receive services as provided by this act."

To be accepted for care a crippled child must come within the provisions of the definition of a crippled child as established by the State Depart-



ment of Public Welfare, as well as conform to the provisions of Section 87 (b) of the Welfare Act with regard to recommendation for necessary care made by a licensed physician—must be suffering from a disease or deformity which may be benefited by treatment; and the parent, guardian or custodian must be financially unable to pay necessary costs of such care. No child will be accepted for service under this program whose chief disability is incurable blindness, deafness, or mental defect, or abnormalities which will require permanent custodial care.

This change of residence requirement has been included in the Indiana State Plan of Services for Crippled Children to conform with residence requirements concerning the commitment procedure of individuals to hospitals of the Indiana University Medical Center as provided in House Bill 74 which has been previously referred to in this article.

#### NEW HOSPITAL CENTER

The Indiana State Plan of Services for Crippled Children for the fiscal year 1939-1940 provides for the development of another hospital center in the City of Fort Wayne, in which crippled children may receive necessary corrective services and care.

This Center will include hospitals selected and approved by the State Board of Public Welfare and will utilize local qualified physicians for the performance of operative, manipulative, and other medical services and care.

Arrangements for the establishment and utilization of this hospital center will be completed as soon as possible after the acceptance of the Indiana State Plan of Services for Crippled Children by the Children's Bureau of the United States Department of Labor.

It should be borne in mind that service afforded crippled children through the state and county

departments of public welfare is only a part of the intensive program of Services for Crippled Children which is carried on in the state. The Acts of 1921 and 1933, which provide for the commitment of children below sixteen years of age to the James Whitcomb Riley Hospital and local public hospitals respectively, have in no way been rescinded or repealed by the Welfare Act of 1936 or the enactment of House Bill 74 in the last session of the General Assembly.

The June, 1938 issue of *The Journal of the Indiana State Medical Association* contained a more detailed article on Crippled Children's Services. This article quotes excerpts from the Federal Social Security Act which provided for the establishment of this service. It also includes an explanation of the Acts of 1921, 1933, and 1936, as well as functional charts of the crippled children's set-up.

In attempting to develop the program of Services for Crippled Children through the welfare departments of the state, the Division of Services for Crippled Children is guided concerning medical policies by the official Liaison Committee of the Indiana State Medical Association. Members of this committee are: I. C. Barclay, M.D., Evansville, Chairman; Wayne R. Glock, M.D., Fort Wayne; Paul S. Johnson, M.D., Richmond; J. H. Weinstein, M.D., Terre Haute; John H. Green, M.D., North Vernon; L. A. Ensminger, M.D., Indianapolis; Louis D. Belden, M.D., Indianapolis; R. L. Sen-senich, M.D., South Bend.

For information or suggestions concerning this program, please feel free to contact the members of the Liaison Committee or send suggestions or inquiries to the Division of Services for Crippled Children, Indiana State Department of Public Welfare, 141 South Meridian Street, Indianapolis, Indiana.

## ADMISSION OF PATIENTS TO THE INDIANA UNIVERSITY MEDICAL CENTER UNDER THE TERMS OF HOUSE BILL 74

(A BILL TO PROVIDE MEDICAL AND SURGICAL CARE AND HOSPITALIZATION FOR INDIGENT PERSONS.)

J. B. H. MARTIN, Administrator  
Indiana University Medical Center, Indianapolis

Section No. 1 of this act provides that "Any person over the age of 16 years who has a legal residence in any county in this state, and who is suffering from a condition or malady, not chronic, or deformity that is susceptible of improvement, cure, or benefit by medical or surgical treatment or hospital care or by special study and diagnosis, may be admitted to any hospital operated by the trustees of Indiana University, treated therein, and discharged therefrom, under the terms of this act and such rules and regulations as may be adopted by the Trustees of Indiana University; Provided,

however, no such hospital shall be obligated to receive any such person who, by reason of mental illness or other condition, is dangerous to other patients in, or to the staff of, such hospital."

Section No. 2 of this act provides in part that "If the application shall be accepted by the hospital, it shall notify the clerk of such fact and the clerk will notify the patient."

The foregoing two paragraphs provide in substance that the same types of cases will be received for service in the Robert W. Long and William H. Coleman Hospitals (except chronic cases) as have

been accepted in the past, and also provide the method by which the patient shall be advised of the admission or clinic date.

Section No. 2 of this act further provides that "the judge of any circuit, superior, criminal, probate or juvenile court of the State of Indiana is hereby empowered to commit to such hospital any person over the age of 16 years having a legal residence in any county of this state as defined in this act in which said judge has jurisdiction, who shall appear, to the satisfaction of such judge after a public hearing, to be suffering from ----- and who is not financially able, if an adult, or whose parents are not financially able if the person is a minor over the age of 16 years, to defray the necessary expenses for such treatment. Such hearing shall be had in a summary manner, on a petition filed before such judge by a citizen of the county, in which such person has a legal residence and shall be had in the presence of the prosecuting attorney of said county. Such judge may, in his discretion in connection with such hearing, have such person examined by one or more reputable physicians, who shall make and file with the clerk of the court a written report of the history, condition and probable results of the treatment of such person. If such judge finds, on the hearing, that such person is a proper subject for treatment in such hospital, and commits such person thereto, the judge shall cause the clerk of the court to make an application for the admission of such person to the hospital on a form to be furnished by the hospital. \* \* \* All the costs of such proceeding including compensation to such examining physicians, and also including the necessary expense of the trip to and from the hospital, if the same shall be found to be a proper charge by the judge, shall be paid on order of the judge by the county from which the commitment is made."

Section 3 provides for the cost and manner of payment of care and treatment by the county from which the case is committed.

Section 4 provides for rules and regulations to be made by the trustees of Indiana University necessary or desirable to carry out the provisions of the act and which are not inconsistent therewith.

Section 5 defines legal residence.

Section 6 deals with the place of filing a petition and county liable for payment of costs.

Section 7 provides, in substance, an extension of

the Welfare Act insofar as it relates to the hospitals of Indiana University to cover patients up to 21 years of age who are crippled. The method of county welfare department recommendation is identical with the method now in use for crippled cases.

Promptness in service to the profession and to patients should materialize rapidly as a result of the change in manner of admission together with concurrent changes and enlargement of facilities of the hospitals of the Medical Center.

The addition of the Clinical Building has already resulted in a more rapid turnover of out-patient service to such patients as can be cared for exclusively by out-patient care. When the 85 beds on the fourth floor of this building and the additional beds devoted to isolation cases in Long Hospital are added to the in-patient facilities, the bed capacity for the Long and Clinical units will be more than double the former capacity of Long Hospital for the care of indigents. This should enable the hospitals to bring about a more prompt acceptance of patients for in-patient care in much the same fashion as has existed in the year past for out-patients. On June 1, 1939, the waiting list for in-patient care contained over 2,000 names. On July 1, 1939, all names will be removed from the waiting list and will be restored only as new credentials are secured.

Beginning July 1, 1939, all emergency inquiries regarding availability of beds will be cleared through a Director of Admissions instead of through residents of the various services as has been the policy in the past. The Director of Admissions, who will be a licensed physician, will likewise supervise a more rapid and more thorough system of case reporting to the referring doctors.

It is hoped that the combination of all these factors will contribute to a better service to the student, the referring doctor and the patient.

The administration of the Medical Center will be very happy to answer any direct inquiries regarding hospital service and will welcome suggestions at any time which will contribute to improvement of the service.

Many changes have been made in the past few years in the institution which is now the Alma Mater of well over 60 per cent of all practicing physicians in Indiana, and a hearty invitation is extended to all physicians to visit with us whenever it is possible to do so.

#### DILATED PUPIL IS A SIGN OF INJURY

A dilated and fixed pupil is usually the earliest sign of injury (on the same side) to the nerve controlling the movements of the eye, William Lister Reid, M.B., and William V. Cone, M.D., Montreal, Canada, point out in *The Journal of the American Medical Association* for May 20.

A hernia of a certain part of the brain (the hippocampal gyrus) can cause enough pressure and there-

fore injury to this nerve to paralyze it. Tumors or injuries (blows, falls and the like) sufficient to alter the blood circulation often cause herniation of this part of the brain.

The authors state that if the significance of this sign is appreciated, early treatment by operative removal of the offending lesion may prevent other complications, such as paralysis of the muscles of the eye, drooped lids, unconsciousness and eventual death.



## HIP FRACTURES\*

WAYNE R. GLOCK, M.D.

Fort Wayne

Every hip fracture is a catastrophe of major importance, particularly in elderly people. This serious injury is too often the terminal event in the lives of people beyond fifty years of age. A person suffering a hip injury, and learning that he has a hip fracture, quickly becomes very apprehensive as he usually realizes the gravity of the situation. Many people are ready to give up their lives, for they know of friends and relatives who have died as the result of such a fracture, or have become incapacitated as the result of deformity. Many people are more willing to die than be severely crippled at an advanced age. The morbidity, deformity, disability, and mortality caused by these fractures is exceedingly high. The death rates of people suffering hip fracture vary considerably with the skill of the physician and the type of treatment employed, averaging about thirty per cent. The incidence of this fracture seems to be higher in the female sex. The age incidence is well known, ranging from the youth to the aged, the highest incidence being in the seventh decade of life.

There are two major types of hip fractures, the intracapsular and the inter-trochanteric. It is, however, possible to have an intracapsular fracture which involves either one or both of the greater or lesser trochanter as the articular capsule is attached slightly forward on the anterior surface of the greater trochanter, along the inter-trochanteric line, and well down on the lesser trochanter. The distinction between these two major types of fracture is very important as to the type of treatment and the prognosis. The extra-capsular fractures heal readily in ten to twelve weeks, regardless of the type of treatment. I have yet to see a trochanteric fracture fail to unite. Probably the most important factor is in the very good blood supply to the trochanteric area from the superior and inferior gluteals, medial and external femoral circumflex arteries. This area of the femur is heavily surrounded by muscle tissue which has a good blood supply, and healing occurs by formation of callus. On the other hand, the blood supply to the head and neck is very meager, coming from the femur through the neck by means of three or four small, nutrient vessels. There is a small artery in the ligamentum teres, a twig from the posterior branch of the obturator, which is said to nourish the head of the femur; however, in the aged, this ligamentum teres is often a fibrous shred, partially or wholly absent. Healing occurs in the intra-capsular fractures not by an exuberant formation of callus but by a slow endosteal bone formation.

Let us dispense with the trochanteric type of fractures at this time by stating that they may be adequately treated by some form of traction, abduction, internal rotation, either by simple traction, well-leg traction, by Whitman spica, or by pinning after reduction. They will always heal reasonably well and in good weight-bearing position without much difficulty. Of the intracapsular hip fractures, the nearer to the base of the neck the fracture line occurs, the better the prognosis for healing; the nearer to the head, the poorer the chance for union and the greater the chance of deformity and resorption of bone and non-union to occur.

The diagnosis of a complete intracapsular fracture can be easily made on inspection as there is external rotation of the leg, shortening, and pain in the hip. Any attempt to elicit crepitus or abnormal motion is neither advantageous nor humane. X-rays usually show the fracture lines, apparent shortening of the neck, coxa vara deformity and superimposition of the head, neck, and greater trochanter as the primary plate is taken in the antero-posterior plane. There is usually no necessity of taking a primary lateral plate; however, a lateral plate will be of some advantage in determining the amount of rotation and angulation of the proximal and distal fragments.

The reduction of practically all intracapsular fractures of the femur is comparatively easy by using either one or a combination of Whitman or Leadbetter methods. The method of my choice is some form of anesthesia (general, spinal, or local), traction with the hip and the knee flexed, with one arm in the groin and one in the popliteal space. The leg is externally rotated to disengage the fragments and then strong internal rotation approximates the fragments. The internal rotation and traction is constantly maintained as the leg is slowly brought down in abduction. This maneuver is usually sufficient to reduce any type of fracture except when there are small comminuted fragments present. In order to check the reduction, the Leadbetter's test is used; that is, following the reduction the heel is placed in the palm of the hand, the leg being in about 30 degrees abduction. If the reduction is successful and accurate reposition of fragments is obtained, the foot will remain straight up and will balance well. If the reduction is not obtained, the foot and leg will constantly rock over and externally rotate. If the Leadbetter's test shows that reduction is complete, you may proceed with what type treatment you choose. If reduction is not obtained on the first maneuver, it may be repeated and a good reduction will usually result. Every reduction should be checked at once by an antero-posterior and lateral x-ray, as often an antero-posterior view shows a perfect

\* Presented before the Section on Surgery of the Indiana State Medical Association at the annual meeting in Indianapolis, October 5, 1938.

reduction and the lateral may reveal inadequate correction of rotation.

Many years ago a fractured hip was either not recognized or not treated with the exception of recumbency. Later on hip fractures were treated by means of crude splints, recumbency, with sand bags and weights. The mortality rate was exceedingly high, with less than ten per cent unions. With the advent of the Whitman reduction and method of treatment with the double hip spica cast, the incidence of union rose to about fifty percent; the mortality rate remained about the same, around thirty per cent. This means that of the seventy per cent living, twenty per cent suffered non-unions, with all gradation of deformity and shortening from one to four inches, resulting in painful, unstable hips. The Whitman method of treatment, when skillfully used, afforded many good results, but still left much to be desired. The hip fracture was still unsolved, for the mortality rate remained unreasonably high, the incidence of union still too low. There were many objections to the Whitman cast, for they are extremely uncomfortable for the aged, heavy and awkward to handle, and have produced innumerable pressure ulcers. Patients were not turned as frequently as they might have been, if not encumbered by a huge cast, and predisposed toward hypostatic pneumonia, cerebral anemia, and general debility. Again the human element of skill was a factor, and many patients had a good reduction but the application of a cast inefficient, clumsy, and ill fitting was in reality a detriment to the patient.

It is impossible for me to conceive of any single or double hip spica which, no matter how carefully applied, would perfectly immobilize the femur and pelvis. The cast is inefficient for the exact purpose for which it is applied, that being fixation and immobilization, for in turning a patient, or when a patient turns ever so little in the cast, there is constantly produced a shearing force between the fragments which predisposes to non-union.

These objections have caused such men as Brackett, Smith-Peterson, Hey Groves, and Gaenslen, to seek a more satisfactory method of treatment. Unquestionably these objections have some element of truth in them. Practically all men chose radical types of treatment; however, most men agreed, in order to satisfy the fundamental precept of treatment of fractures, that the fragments must be reduced, the reduction maintained until healing occurs, and that some form of internal fixation is necessary to increase the incidence of union, and lower the morbidity. At the turn of the century, J. B. Murphy nailed these fractures with one or two ordinary finishing nails and obtained some very good results. Later men used ordinary wood screws and later pins. About eight years ago Smith-Peterson decided that one pin, screw, or nail was insufficient to cause fixation due to the small area of friction afforded, that

with necrosis of bone the fixation was lost and, therefore, evolved the three-flanged nail which he thought would offer more surface friction, less opportunity for bone necrosis, and more securely fix the proximal fragment. Smith-Peterson and others using the three-flanged nail have reported that the incidence of union was sixty to seventy percent, and that the mortality was greatly reduced.

Hey Groves and Brackett and others were more radical and suggested early open operation for the purpose of obtaining perfect anatomical restoration of the fragments and then using internal fixation at the time. Hey Groves even recommended a nailing by autogenous bone graft from the crest of the tibia, from the head of the femur outward, and the use of ivory and beef bone pegs. Brackett has advocated comparatively early open reduction of the fracture and scooping out the head of the femur so the head could be capped over the neck. By this method he hoped to secure early union in six to eight weeks and allow early restoration of function of the hip. Cotton has advocated an impaction method of treatment, that is to secure a reduction, and then with a large, heavy mallet impact the fragments so a mild valgus deformity results. Following the impaction, a cast is applied. When the fracture is sub-capital, some men have advocated the early removal of the head and institute early motion of the hip joint. Some of the recent types of treatment are variations of the above methods—for example, Sven Johansen modified the Smith-Peterson three-flanged nail by having a hole drilled through its long axis so that pinning could be effected by threading the nail over a pin centrally located through the neck into the head.

Gaenslen originated a blind pinning method by inserting four to six steel knitting needles into the neck and head at various intersecting angles for fixation. The pins he later used were cut off beneath the skin to be removed four to six months later.

The internal fixation of my choice is the multiple pinning technique using four to five Granberry wires or threaded bicycle spokes. Local or spinal anesthesia is preferable to general anesthesia, although general anesthesia allows a speedier operation. Following the reduction, it is possible to drill the wires from two to three inches below the greater trochanter through the neck into the head under direct vision under the fluoroscope. Thus far I have encountered no difficulty in seeing enough of the hip joint structures to place the pins perfectly in the proper antero-posterior plane. It is necessary that the fluoroscope be turned on only for the one to two minutes required in actually running each pin into position. The anterior superior iliac spine and the top of the greater trochanter may be palpated for landmarks and so start the pins through the cortex of the femur well down on the shaft. The drill should be held parallel to the operating or fluoroscopy table. In order



to prevent the pins from emerging posterior to the head and neck, the leg must be strongly internally rotated.

One should be very careful that the wires are never drilled beyond the head. I believe this precludes any pin from fixing the hip joint and later migrating into the pelvis, although an occasional pin will loosen and back out through the skin. In such an event the pin is removed at once. Before cutting the pins off beneath the skin surface, both antero-posterior and lateral x-rays must be taken for the final check of the position of the pins. The postoperative care is minimal as there is very little trauma done. The patient may sit up immediately and roll over onto the unaffected side and may be discharged from the hospital in a week or ten days. It is possible for the patient to sit up in a chair in several weeks or walk with crutches; however, I prefer that they remain in bed for three months before walking with crutches and begin weight-bearing after four months. It is desirable to leave the pins in place for a period of six months or longer. The only objection to this method is the slight discomfort the pins occasionally cause, sticking the patient from within out. Using caution in placing the pins, this method may be used wherever x-ray facilities are available.

I have used the Johansen nail; however, I feel that it does not offer as secure fixation as the multiple pinning method. In placing the Johansen nail there are a few technical difficulties in addition to those involved in the multiple pinning method. The nail must be accurately centered through the neck and head, otherwise it may split either distal or proximal fragment. If the nail needs to be retracted slightly it loses its efficiency, and it is difficult to engage enough of the head without penetrating it. Many surgeons regard the three-flanged nail as simply a three bladed chisel which impairs the circulation and impedes the formation of the bony trabeculae over a wide area.

In old, untreated or un-united intracapsular fractures there are many procedures available such as a delayed pinning or arthrodesis. The Brackett operation may still be done. In cases of aseptic necrosis of the head or resorption of the neck a Whitman reconstruction operation may be done, or a Lorenz bifurcation. A Colonna arthroplasty may be done to effect a stable, painless hip joint, or if the head remains viable and there is not much resorption of the neck, a high Shanz osteotomy may be done and union may be obtained.

#### CONCLUSIONS

1. Trochanteric fractures always heal reasonably well with ordinary care.
2. Some form of internal fixation is necessary to maintain the reduction and fixation in the intracapsular hip fractures until healing occurs.
3. Internal fixation of the intracapsular hip fractures has substantially increased the incidence

of union, and has markedly decreased the morbidity and mortality.

4. Some adequate form of internal fixation should be available in every community.

#### DISCUSSION

C. F. THOMPSON, M.D. (Indianapolis): I should like to add only one or two points to Dr. Glock's very complete discussion, the first of which is this: that the older the patient with this type of fracture, the higher the immediate mortality rate. We have lost forty per cent of them even under the best conditions and within the healing period of the fracture. We must consider these fractures an emergency. Too often we say that our first regard must be for the patient, and our second regard for the fracture, and the result is we put sandbags to the limb, we make no attempt to correct the deformity, and we administer sedatives to make the patient comfortable, presumably treating the patient for hip fracture shock. As a matter of fact, we are neglecting the most important step to relieve this patient of fracture shock. That step is reduction of the fracture as soon as possible, and reduction which will relieve the patient of much pain, and permit activity—at least bed activity—of the patient.

May I suggest this aphorism to you: Treat the fracture and forget the patient. There may be exceptions to that rule, but let us treat these hip fractures immediately and, through our treatment of the fracture, get our patient active again and relieve him of his pain.

So far as anesthesia is concerned, I think the ideal anesthesia for the multiple pinning procedure is obtained from a safe dosage of barbiturates or a safe dosage of avertin and local infiltration of skin and periosteum over the area below the trochanter which one must traverse with wires.

I might add one helpful point: If the patient is under a safe dose of barbiturates, in which he will give some reaction to a little pain, but still does not have enough muscle spasm to hinder reduction, you have a patient in whom, if you pass that wire beyond the soft bony tissue, there will be a reaction of pain, and it is a tremendous help. I have not been so successful as Dr. Glock in following these wires with a fluoroscope. Cancellous bone in the femoral neck has a minimum of sensory supply. There is no pain after passing the periosteum unless the nail strikes adjacent soft tissue, touches capsule, or penetrates into the acetabulum. So that with the patient quieted and the fracture reduced, if pain occurs after the point of the nail passes through cancellous bone, it is wise to withdraw and reinsert the nail because it is in dangerous territory.

How soon we can permit these patients to be active depends on the degree of accurate reduction and the efficiency of our fixation. If we are satisfied with our immediate reduction and it is a perfect reduction, and we have adequate fixation,

I don't think we need keep these people under a protected regime to the hip as long as six or eight weeks. With a certain amount of care they begin to swing the leg carefully. I do favor, however, early protection to prevent the leg from adducting, because I think, like some of the rest of you, that we have had the unfortunate experience of having the leg adduct or rotate, and angulation of the wires results together with opening of the fracture line which does not contribute to an immediate good result.

There is one thing that this technique has taught

us, and that is accurate reduction of these fractures. Under the old method of traction, adduction, rotation, or even the Leadbetter method, it was an excellent maneuver, yes, but we did not have reductions as we do when we are going to penetrate those fragments with a single nail or multiple wires.

One of the principal factors in our success in reducing the immediate death rate of these patients and obtaining percentages of union to as high as eighty-five and ninety per cent has been our accurate reductions, and with a method of fixation which is highly efficient.

## PIN TREATMENT OF INTRACAPSULAR FRACTURE OF THE FEMUR

FRANKLIN E. HAGIE, M.D.

Richmond

Hip fractures are placed in two classes, intracapsular and extracapsular fractures. The intracapsular fractures are spoken of as neck fractures although the capsular ligament fails to cover the outer half inch of the neck posteriorly. The extracapsular fractures are spoken of as intertrochanteric fractures as they involve that area of the femur.

The union of intertrochanteric fractures is very good and seldom gives trouble but the union of neck fractures is not nearly so good or so early in formation. This is true where both types are equally well reduced and given good care. Different reasons have been given but the most logical one is referable to the difference in the amount of the blood supply in the two locations. The nearer the fracture is to the head, the less the blood supply there is to the injured part. The damage to the blood supply coming through the ligamentum teres, or lessened blood through the ligament due to the age and general condition of the patient, may be the underlying factor.

In considering any type of internal fixation for these neck fractures, we first must realize the surrounding ligaments of this area. In no other place in the body where we use internal fixation do we have the help of ligaments as we do here. Five ligaments enter into the fixation of the hip joint: ligamentum teres, transverse, cotyloid, capsular, and ilio-femoral. The ligamentum teres helps to hold the head in the acetabular cavity and to carry in blood supply to the head. We have no such arrangement in any other joint in the body. The transverse and cotyloid ligaments tend to

deepen and round out the cavity, bridge across the notch and give greater leverage and stability to the joint. The real ligament power is in the capsular and ilio-femoral ligaments. The capsular ligament is attached above to the circumference of the acetabular cavity and below to the anterior intertrochanteric line of the femur and around the neck posteriorly leaving the neck uncovered in the lower half inch. Lying over the capsular ligament in front and attached to it is the powerful ilio-femoral ligament or Y ligament of Bigelow. This ligament is attached to the anterior inferior spine of the ileum above and to the anterior intertrochanteric line below with the Y separation for the lower head. So we have a fractured area in the neck fractures, well surrounded with these strong strap bands of fibrous tissue, doing their part to splint the area. It is on account of these ligaments that internal fixation is being used more and more and without any type of external fixation.

In the last few years many different types of internal fixation for neck fractures have been brought forth. The main reason for this departure from the cast method has been due to the poor results obtained with the abducted spica cast after weeks and months in this restricted position. Ankylosis of other joints held in the cast by long fixation has been very disturbing. It is almost impossible to avoid bed sores even with the very best of care. Turning your patient on the abdomen for periods during the day, cutting out the back of the cast, and putting hinges at the knee have not decreased the discomfort to any great extent. Any procedure that will give as good or better results



*Lag Screw Spear Pin.*





with more comfort to the patient should be adopted. We do not use casts on the pin cases, therefore the elderly patients enjoy greater comfort.

The spear pin is six inches long, made of stainless steel, with the end squared for any chuck drill. The lag screw threads are for a distance of one inch and after insertion they will lie entirely in the head. The lag screw threads are not for drilling through cortical bone, so one is less apt to drill out of the neck on insertion, as the side of the neck will push the pin back. You are without any sense of feel in driving any fixation into the neck area, but with the screw pin and brace in your hands, you have the sense of feel during the insertion. With the three lag screw ends anchored in the head of the bone and with the nuts tightened, a good fixation is obtained. The principle is Dr. Moore's; the lag screw threads we have added. We feel that the different method of introduction and the greater fixation this type gives are worthy of consideration.

Following is the method employed in the care of these patients with a neck fracture of the femur.

The patient is taken to the hospital, x-rayed, and then put to bed over night and kept comfortable with sand bags along the leg and morphine for pain. In this way we have a better check on elderly patients as to their index of resistance be-

fore any interference is begun. The next morning the procedure is carried out under a gas and ether anesthetic or an avertin anesthetic alone. We feel that less shock and better reduction, which is so necessary, can best be obtained by relaxation under an anesthetic. The patient is placed on a regular operating table with the cassette trough, open at one end, under the hips. The table surface is made level with the upper surface of the trough. The fracture is reduced by the operator standing on a platform near the table, thigh flexed to a right angle to the abdomen with traction, followed by internal rotation, abduction and extension. The leg is then checked by the Leadbetter's test, the heel and palm test, to see if the reduction is complete. Putting the feet together will help to verify the reduction. If you feel that the reduction has been obtained, a nurse sits at the foot of the table and holds the foot on the table with the toes markedly turned in. In this position the neck is parallel with the surface of the table and the x-ray will give a full neck picture.

Two wires held by adhesive are then laid on the skin over the hip area, one over the center line of the neck and the other at right angles to the first, over the head of the bone. The x-ray is then taken to give us two conditions: first, as to our reduction, and, second, as to the wire lines to assist in the pin insertions. If reduction is good, then the wires are rearranged if need be by the aid of the x-ray film just taken, to give the middle line of the neck and the top of the head. The wire lying over the center of the neck is marked by a row of skin clips to the skin, with the top skin clip over the center of the head. The wires are then disregarded and the skin clips give you the line to follow. The area is painted, lateral incision below greater trochanter, fascia split and fibers of the vastus externus separated exposing shaft. Location for the upper pin is selected directly under the base of greater trochanter. The cortex of the femur has to be drilled with a regular bone drill the size of the pin as the spear pin will not drill through the cortex of bone as the threads are of a lag screw type. The insertion of the pins is at an angle to the shaft surface, so a few taps on an ice pick where the pin is to enter will center your drill so it will not "kick off" in starting. The spear pin is then put in a chuck drill brace, ready for insertion. The nut is always set four inches back from the head of the pin so the distance the pin has entered the bone can always be estimated. With the pin inserted in the hole through the cortex below the trochanter, sight the skin clip line on the skin and drill in the pin. As soon as the pin enters the head, the drill will turn hard; once you have felt the drill with the pin entering the head, you will always appreciate it. You can check how far the pin has entered by the distance between the nut and the surface of the femur. After a few turns in the head substance, stop and disconnect the drill. The two other pins are inserted below to complete the triangle, starting the

pins the same way, ice pick, bone drill through cortex, and then drilling in the spear pins.

The second x-ray is then taken and the pins are put in further if necessary. The nuts are then tightened down to the bone surface, with a large artery forceps and then cut off with strong nippers. There are always a few threads outside of the nut; with a chisel and hammer, cut and batter them in a few places and the nut will not come off, and thus eliminate the use of any wire. The vastus externus is sutured over the nuts, ilio-femoral fascia closed, skin sutured and dressing applied. A lateral x-ray is taken before the patient leaves the table.

The patient is put to bed with sand bags along the legs for a few days until the soreness lessens. No cast is applied, and the patient sits up in bed in a few days and is turned on the side for back

rub. The knee is flexed a little each day and the patient leaves the hospital within three weeks. If the patient is young enough to handle crutches, they may be used at this time. One patient was walking in four months, but we do not advise weight bearing under six months even with the union on x-ray appearing solid.

#### SUMMARY

The care of neck fractures of the femur should first be to get a good reduction under an anesthetic and have the reduction proven by x-ray film. Then the three small spear pins with the lag screw threads are drilled through the neck into the head which fixes the area, and no cast is applied. Our results are better with this procedure and our patients are much more comfortable and happy.

SECOND NATIONAL BANK BLDG.

## THE INJURED BACK\*

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The basis of this paper is primarily a review of 375 cases of traumatic low back pain seen by us from April of 1937 to April of 1938.

For convenience of tabulation and discussion the cases have been divided into two groups: first, those cases of low back pain resulting from direct trauma; second, those resulting from indirect trauma or effort strain.

Low back injuries of the direct trauma type always should have a thorough x-ray examination because they are frequently symptom free at the time of the first examination, and from examination alone such cases cannot be separated from the effort strain group. An x-ray examination of the spine is never complete without a lateral view.

Simple compression fracture of the vertebrae rarely shows any signs of cord injury unless there is some dislocation. Contusion of the cord with paralysis below the lesion can occur without x-ray evidence of dislocation. This condition is, as a rule, self limited and begins to clear up in two to three weeks. Conservative treatment alone is indicated for the paralysis. None of our cases of compression fracture exhibited any abnormal neurological signs. Almost all cases of compression fracture exhibit signs of paralytic ileus within twenty-four to forty-eight hours of the injury. This is such a constant sign that any case of back injury which develops symptoms of a paralytic ileus should be considered a case of compression fracture until proved otherwise by thorough x-ray examination. It is felt that retroperitoneal hemorrhage at the site of the fracture is the cause of the ileus, the treatment of which is symptomatic as it seldom lasts more than one or two days.

The treatment of compression fracture is hyperextension. We prefer to keep the patient in mild hyperextension on a hard bed until all signs of ileus have disappeared. The fracture is then reduced by forceful hyperextension, and with the patient maintained in hyperextension, either by the use of a Goldthwaite frame or by straps around the ankles, a body cast is applied. Since it has been shown that with the spine in hyperextension the weight of the body rests on the articular facets and not on the body of the vertebrae, we allow these patients to be ambulatory after about two weeks without fear of damage to the injured vertebrae. The body cast is left on for about ten weeks, the patient is then supplied with a Taylor back brace which is kept on for another ten weeks, after which time all support is left off. We have found that physiotherapy in the form of short wave has been of decided benefit after active motion is started. Compression fractures of the upper dorsal spine occasionally occur, and in these cases it is extremely difficult to reduce the deformity, and unless the deformity is great no attempt is made to do so. In these cases a plaster jacket is applied about the chest and extending up to the base of the skull posteriorly and to the point of the chin anteriorly. This cast is left on from three to three and one-half months since it is not possible to supply the patient with an adequate brace. The majority of compression fractures recover and are symptom free, although there may be some wedging of the vertebrae. We have occasionally seen patients in whom x-ray examination revealed an old compression fracture which had not been diagnosed or treated and which had not caused any discomfort other than a week or two of back pain following the injury. In a number of cases we were unable to obtain a history of injury.

\* Presented before the Indianapolis Medical Society, December 13, 1938.



Fractures of the transverse processes of the lumbar vertebrae are of more frequent occurrence and usually involve more than one transverse process. Every case of transverse process fracture in our series gave a history of direct trauma of some violence. In spite of this history of direct trauma, it is difficult to see that trauma alone could have caused the fracture since the transverse processes are well protected by the sacrospinalis muscles. Furthermore, we occasionally see cases with fracture of the transverse processes on both sides in which the blow was applied to only one side. We believe that the cause of these fractures is forceful contraction of the quadratus lumborum muscle and not the direct blow. Incomplete fusion of the epiphysis at the tips of the transverse processes may lead to error in diagnosis. The physical findings are, as a rule, quite definite, and the later x-ray check up will reveal callus in those cases in which doubt exists. Fractures of the transverse processes invariably heal (regardless of the type of treatment used) in about two months' time, but the use of a plaster splint is of decided benefit to the patient's comfort.

Fracture of the articular facets of any vertebrae can occur and the treatment is splintage in a plaster cast. No such case was observed in this series.

Spondylolisthesis is usually described under the direct trauma type. It is our feeling that this condition is a congenital defect resulting from failure of fusion of the pedicles of the fifth lumbar vertebra, and is only brought to light following aggravation by some trauma. It is possible in very severe trauma to have a fracture of the articular processes and a spondylolisthesis result. The standard treatment recommended for spondylolisthesis is spinal fusion. We feel that conservative treatment should be tried before resorting to operation as two cases of this series became symptom free by the use of conservative means alone.

By far the majority of back injuries are of the indirect trauma, or effort strain type. These cases always deserve careful and conscientious study, for it is in this group of cases that the most difficult problems of diagnosis and treatment are found.

A diagnosis of lumbosacral strain was made in eighty-six cases of this series. These patients usually gave a history of having been in a stooped position while attempting to lift some weight. A few received a sudden twist. Occasionally pain did not result until after they had straightened up from a lift. These strains were followed almost immediately by acute pain in the low back which was usually severe enough to cause the patient to seek medical attention at once. A number of these cases did not become totally disabled until they attempted to get out of bed on the following day. Many patients described a "snapping" sound or a sensation of something tearing in the back immediately preceding the onset of pain. The patients usually complained of a constant dull ache in the mid low back which became a sharp stabbing pain when they attempted to bend over or attempted to twist

to one side. Twenty-two of these cases had radiation of pain in the legs. In some this radiation occurred immediately following the injury; in the majority radiation of pain did not appear until several days following the injury, and in a few cases there was no pain in the legs until after the pain in the back had entirely disappeared. This radiating pain was usually described as a burning pain which traveled down the back and lateral side of the leg to the knee or ankle. A few cases had pain radiating down the front of the leg, and there were a few cases in which the pain radiated around the lower abdomen and into the scrotum. Tenderness over the sciatic nerve was a frequent occurrence, often accompanied by numbness of the leg, particularly of the lateral aspect, and some weakness. Occasionally the numbness which the patient described could not be demonstrated on examination. Reflex changes rarely occurred with these early cases.

Examination usually revealed a patient who walked with a shuffling gait or a limp in a slightly stooped position and with care to avoid any sudden motion. The majority had fixed lumbar spines so that when flexion was attempted there was no loss of the normal lumbar lordosis. There was almost always muscle spasm present but frequently only on one side. There was always marked tenderness in the region of the lumbosacral junction. Flexion was particularly limited and painful. Lateral bending and hyperextension were painful but usually not to the same degree. Occasionally a functional scoliosis was present. Weight bearing was not, as a rule, painful. Straight leg raising was almost always painful and usually on both sides. Many other signs have been described to aid in differential diagnosis of lumbosacral strain but in our hands were not particularly useful. We have laid more stress on the location of tenderness, limitation of motion and muscle spasm. The location of tenderness was our greatest guide in grouping these cases.

The lumbosacral joint is formed by the articular processes of the fifth lumbar vertebra and those of the first sacral segment. The only bony support is the arrangement of the articular processes which prevents anterior dislocation. The remainder of the support to this joint is soft tissue. Because of the large range of motion at this site, added stress is applied to a comparatively weak joint. The lower lumbar spine is also the seat of numerous congenital anomalies. There has been considerable discussion as to just what part these congenital anomalies play in the production of low back pain. Undoubtedly, certain congenital defects tend to make for a weak construction. We do not believe that these congenital anomalies are a prime factor in the cause of injury or in its cure. We have, therefore, had a tendency to disregard congenital anomalies completely in treating these cases.

As mentioned above, there were twenty-two cases of lumbosacral strains in which sciatic radiation of pain occurred. It has been shown that the size

of the nerve trunks increases in the lower lumbar spine and that the size of the intervertebral foramen decreases as the sacrum is approached. The nerve trunk of the fifth lumbar vertebra, therefore, almost completely fills that foramen. It is evident, therefore, that any derangement could cause pressure on this nerve root. It has also been shown that there is intimate relationship between the nerve roots which go to form the sacral plexus and the fifth intervertebral disc at the lumbosacral junction, so that direct irritation of the nerve roots can occur. However, it has recently been demonstrated that a large percentage of sciatic pain is of a referred type. The possibility of a herniation of the nucleus pulposus should always be considered with intractable low back pain associated with sciatica.

Eighty cases of the above series received a diagnosis of sacroiliac strain. Insofar as we were able to determine, these strains were produced by exactly the same mechanism which caused the lumbosacral strain and the picture which they presented did not differ greatly other than in location of pain and tenderness. The history which these patients gave was almost invariably the same as that given with the lumbosacral group with the exception that they described the pain as being in one hip or the other, and that the pain was greatly aggravated by walking. A functional scoliosis was found more frequently in this group than in the lumbosacral group. There was muscle spasm on the affected side, marked limitation of all motions and pain in the affected joints on all motions. There was tenderness over the joint involved. Straight leg raising on that side was usually extremely painful while straight leg raising on the opposite side did not, as a rule, cause pain. There have been a number of signs described for the differential diagnosis of sacroiliac strain. Here again the location of tenderness and pain was our basic guide in classification.

Twenty-three patients with a diagnosis of sacroiliac strain had sciatic radiation. The mechanism of production of sciatic pain associated with sacroiliac strain is perhaps not so well explained as with the lumbosacral strain. The sciatic nerve runs very close to the upper portion of each sacroiliac joint and could easily be influenced by any inflammatory condition of that joint. Further, it is easy to understand sciatic radiation on a basis of referred pain. The character of the pain and the physical findings in cases of sciatic radiation associated with sacroiliac strain were essentially the same as those found in lumbosacral strain.

We have found a large number of cases which did not fall clearly into either of the above classifications. These, together with a number of mild contusions to the back, were grouped under the heading of "Low Back Strain." The symptom complex and the treatment of these cases were essentially the same as in the preceding groups and do not need further discussion.

A large number of cases bore a diagnosis of sacrospinalis muscle strain and contusion and quadratus lumborum muscle strain and contusion. These cases, as a rule, did not have as severe pain as the preceding groups and there was a definite localization of tenderness over the part of the muscle involved. We believe that these cases had tears of the muscle fibers without involvement of the bony structures. They responded satisfactorily to conservative treatment. The part played by referred pain in the production of sciatic radiation is further borne out in that three of the forty cases of sacrospinalis muscle strain had sciatic radiation.

Ninety-six percent of the effort strain group recovered in from one to four weeks almost regardless of the type of treatment used. We found that we obtained the best results by first applying a *good* adhesive strapping and we emphasize the word "good" because we do not see how two or three strips of adhesive tape placed across the back can be of any material benefit. Adhesive strapping should come well down on the buttocks in a criss-cross fashion and should extend up as high as the eighth dorsal vertebra. With this adhesive strapping, the patient is advised to have bed rest on a hard bed and a small pillow or folded sheet should be used under the small of the back. A pillow under the knees frequently aids in comfort. We prefer to remove the adhesive tape in from five to seven days and then have the patient use some form of local heat and liniment. This is usually enough. Occasionally it is necessary to reapply the tape because of a return of symptoms following the removal of the first strapping. In this way the patient's back does not become raw from the taping. Occasionally we have found that physiotherapy is of benefit, but it has been our experience that "Morse Wave" will irritate the condition if used at the onset. A good many cases recovered with the use of adhesive strapping alone; also, a great many cases recovered by the use of heat and liniment alone. Best results were obtained when these two types of treatment were combined with bed rest.

It is the four percent of cases which do not recover with the above outlined means that constitute the so-called "low back problem." These cases have been subjected to almost every kind of treatment that can be imagined.

In 1901 Pickard described a method of epidural injection for the treatment of sciatic radiation. Many observers since that time have recommended this procedure and it is still a common practice. Various solutions have been used for the injection but the most common solution is a mixture of saline and novocaine, the injection being made into the sacral hiatus, and from 80 to 120 cc. being used. Although this method has been unsatisfactory in our hands, it is a procedure easily done, not expensive and not harmful, and with repeated injections occasionally it has produced a good result.

All types of manipulation have been recommended



and described, both with and without anesthesia. A number of men recently have worked out definite routines of manipulation and exercise which they feel have been of great benefit. In our hands, manipulation under anesthesia has been most commonly used, but it has been a hit or miss procedure with indifferent success.

Various types of casts have been advised and we feel that undoubtedly fixation in body casts over a period of months has been satisfactory in many private patients, but prolonged fixation with casts has certainly not been satisfactory in handling compensation cases.

We formerly used a large number of corsets and back braces. Although these afforded the patient some relief from pain, they seldom obtained sufficient relief to permit work and almost never resulted in a cure. It is interesting to note that in the last eight months we have not prescribed a single corset or back brace for a patient suffering from an effort strain.

Although none of the above series of cases received x-ray treatment, this procedure is coming more and more into use, and while we are unable to determine beforehand whether or not the patient will be benefited by x-ray, and are unable to explain why it works when it does, a number of patients have been given pain relief by this means.

We have not used Stiendler's method of novocaine injection into the lumbar muscle. Recently Haggard has described a syndrome referable to the piriformis muscle in which he has obtained satisfactory results by the injection of novocaine into the piriformis muscle and about the sacrosciatic notch and sciatic nerve. Although none of the above series of cases received this method of treatment, we have used it on some recent cases without marked benefit.

When conservative treatment has failed to give relief, then operative procedures must be undertaken. One of the first of these is some form of stabilization operation of which a number of types have been described. The literature is full of satisfactory results obtained at different clinics by the use of a stabilization operation. Some men have reported cures in as high as ninety-seven percent of the cases operated. However, the majority of men reporting good results from these stabilization operations have been dealing with private patients. It is generally conceded that this type of operation in compensation cases gives universally poor results. Medical directors of some of the large insurance companies have recently stated that they have never seen a patient recover sufficiently to return to work following a spinal fusion operation.

In 1935, Ober, of Boston, described a condition of low back pain with sciatic radiation in which there was an association of tender and tight iliotibial band. He found that with the patient lying with the affected side up and with the knee flexed at right angles, extension and abduction of the thigh resulted in pain, and in many cases

the thigh would remain in a position of abduction. This sign has been designated as Ober's sign. For the relief of this condition he advised sectioning of the iliotibial band and the fascia in the gluteal region. By the use of this procedure he was able to get relief in a high percentage of his cases. In this series we performed this operation in ten cases. A few of these had operations on both sides. In a number of our cases we obtained complete relief of symptoms following this operation. However, in a few we obtained a relief of pain in the leg but the patient continued to have pain in the back. A few patients were completely relieved of their pain temporarily only to have a return of symptoms when they returned to work. About half of the patients were not improved at all. In all but two of these cases operated upon, the iliotibial band was very tight and separated like a ripe watermelon when cut.

For the past ten years there has been a growing interest in the part played by the intervertebral disc in the production of sciatic radiation and low back pain. Mixer and Barr, of the Massachusetts General Hospital, were among the first to show that the pathological lesion could be demonstrated and that removal of the protruded intervertebral disc would result in the relief of the symptoms. Since that time a great amount of work has been done throughout the entire country and the neurosurgeons in particular have been very enthusiastic about embracing this procedure.

In the above series of cases we performed thirteen spinal lipiodol injections on patients with persistent and intractable low back pain with sciatica. The majority of these cases had changes in cutaneous sensation of the affected leg and an absent ankle jerk. Several cases had definite weakness and atrophy of the leg. We, however, did not do a preliminary spinal fluid total protein determination before the lipiodol injection was done, but ran this determination from fluid collected at the time of the lipiodol injection. Of these thirteen cases only two showed a total protein reading above forty-five milligrams percent. Both of these cases showed small defects in the lipiodol and both received laminectomies. In one case nothing was found and in the other case we let ourselves off by saying that there was a hypertrophied ligamentum flava. The one in which nothing was found obtained complete relief of his pain until he became ambulatory and tried to work, then he had a recurrence of symptoms. The other case developed a severe urinary infection following operation and died.

At least half of our cases had severe pain following lipiodol injection and a number of these cases were totally disabled for a period of months. This is a finding which seems to be unique in our hands. In three cases when the most marked defect was demonstrated by lipiodol examination, the patient recovered without operation. One patient was completely relieved following the lipiodol injection and has continued to work with-



*Typical defect  
shown in x-ray.  
Complete relief  
by manipulation  
of back.*

out difficulty ever since. Another patient got well for no apparent reason and the third case (as shown in illustration) received a few manipulations which completely relieved him and he has been doing heavy manual labor ever since.

We are, therefore, very conservative in regard to the whole subject of rupture of the intervertebral disc. We feel that certainly it is a definite clinical entity, but that spinal lipiodol injection should not be done until all types of conservative non-operative means have been tried, and until there are definite neurological changes in the affected leg which can be demonstrated repeatedly without question. Then a spinal puncture should be done and if the total protein is elevated, we feel that spinal lipiodol injection should be resorted to. Unquestionably, there are cases of rupture of the nucleus pulposus which present a symptom complex and spinal lipiodol findings which prove the lesion, and in these cases operative removal of this protruded disc will result in alleviation of symptoms. It has been shown by some workers that the protruded nucleus pulposus has a tendency to slip in and out in various positions of the spine, and this possibly explains negative findings at operation when a defect has been shown in the x-ray. It also may be the answer to relief of symptoms following manipulation.

Since the majority of cases included in the above series were compensation cases, we wish to point out again that any procedure which you resort to in this type of patient is receiving the acid test. The patient's psychology in regard to spinal conditions is very poor and the majority of these patients must be returned to heavy manual labor.

In review, we wish to point out that all low back conditions deserve a careful history and physical examination with a definite outline of treatment, always being on the lookout for those cases which do not respond to the more conservative means. Second, ninety-six percent of all cases of the effort strain type recover in a period of from one to four weeks with almost any type of treatment. Third, it is the four percent that do not respond to conservative treatment in a reasonable length of time that make up the low back problem, and although we are making steady progress, we do not feel that this problem is solved. Fourth, we wish to point out that in our hands no operative procedure has been very satisfactory. Fifth, we wish to emphasize great caution in the use of spinal lipiodol and stress that it should not be used until a probable diagnosis of ruptured intervertebral disc can be made from physical examination.

820 CHAMBER OF COMMERCE BUILDING.

#### HOW TO ACQUIRE A COAT OF TAN

If tanning is desired the skin should be exposed long enough to produce an appreciable redness, Matthew Luckiesh and A. H. Taylor, Cleveland, conclude from their study of the effect on the skin of different wavelengths of ultraviolet rays, reported in *The Journal of the American Medical Association* for June 17.

Although an apparently direct tanning effect with less inflammation can be obtained with longer wavelengths, the intense heat and duration of exposure necessary are prohibitive if one desires to become tanned. A much more efficient and effective method is to expose oneself repeatedly to natural or artificial sunlight, making the exposure sufficient to obtain an appreciable redness.

This is apparently true regardless of whether the source is sunlight or a sun lamp.

Daily exposures of from one tenth to one fourth of that required to produce a minimum perceptible redness were found to be sufficient to bring about recovery from rickets.

It should be realized by the person desirous of becoming tanned that blonds are from 40 to 170 per cent more sensitive to ultraviolet rays than are brunets. Also men are about 20 per cent more sensitive than women.

Except in June, July and August tanning is possible only between the hours of 9 a. m. and 3 p. m.



# OPHTHALMIC TREATMENT IN GENERAL PRACTICE

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## CONJUNCTIVITIS

Conjunctivitis is the commonest ocular condition which the general practitioner is asked to treat in both children and adults. The acute form occurs with redness and slight edema of the conjunctiva accompanied by a small amount of watery or mucoid discharge. The onset is rapid and the patient complains of a feeling of a foreign body, a sensitivity to light and tearing. The etiology of this condition is varied. The bacterial agent most often encountered is the diplobacillus of Morax-Axenfeld while the pneumococcus and the Koch-Weeks bacillus occur with less frequency. Many other bacteria may infect the conjunctiva, but these three organisms account for the greatest number of cases. The bacillus of Morax-Axenfeld is most often found in cases of angular conjunctivitis where the inflammation is most pronounced at the internal and external angles of the lids. The Koch-Weeks bacillus is generally thought to cause the epidemic form of acute conjunctivitis which is characterized by extreme redness of the eyeball—typical pink eye.

The rational treatment of acute conjunctivitis should bear a definite relationship to the etiology of the condition. Unfortunately, in clinical practice, the demonstration of specific etiology is all but impossible. Smears of exudate or of conjunctival scrapings are more often than not negative for bacteria. Only culture methods are of definite value, but they are of no practical use in clinical medicine where treatment cannot be delayed pending the receipt of a laboratory report. Consequently the treatment of acute conjunctivitis must be in great measure empiric. It is based upon the use of mild antiseptic solutions which, in certain cases, may be specific for the etiologic agent, but in any case accomplish the mechanical removal of the bacteria and their products. A satisfactory prescription for use in acute conjunctivitis may well contain boric acid as a mild antiseptic agent, a zinc salt for its specific action against the Morax-Axenfeld bacillus and, in addition, a small quantity of local anesthetic agent in order better to relieve the foreign body sensation which annoys these patients:

Boric Acid .....	grains x
Zinc Sulphate .....	grains i
Holocaine Hydrochloride .....	grains v
Distilled Water to make .....	ounces i

This should be dispensed in a dropper bottle and the patient instructed to use five drops in the affected eye every three hours. He should also be told to wear a dark glass as this will relieve the sensitivity to light. Finally, he should be given a prescription for a simple ointment:

Boric Acid Compound .....	drachms i
(ophthalmic ointment)	

with instructions to pull down the lower eyelid with the forefinger and lay a stream of the ointment across the eyeball before retiring. The ointment will lubricate the lids and obviate the complaint that they stick together in the mornings upon arising. Under no circumstances should an eye with acute conjunctivitis be bandaged. In unilateral cases always caution the patient against contamination of the unaffected eye by hands or towels. The very severe cases will be benefited if, in addition, cold packs are applied to the eye for ten minutes of each waking hour. Such packs are easily made by placing a wash cloth or gauze square in a pan of cracked ice. When saturated with ice-water the pack is applied over the affected eye and is replaced with a fresh one as soon as it warms.

Cases of acute conjunctivitis which do not improve after five days of treatment, cases of acute purulent conjunctivitis and all cases of chronic conjunctivitis require expert treatment.

## THE STYE

The sty (hordeolum externum) is an acute staphylococcal inflammation of a gland of Zeiss (oil gland of an eyelash). It follows chronic inflammation of the lid margin and chronic conjunctivitis. These conditions, in turn, are most often the sequellae of errors in the refraction of the eyes. Refractive errors, especially if they result in far-sightedness, lead to over-work of the ciliary muscle for their correction. As a consequence the ciliary muscle requires a greater blood supply, and to meet this requirement there occurs congestion of the ocular blood vessels. In the eyelids this increase in vascularity is followed by excessive secretion of the oil glands of the eyelashes. One of these glands becoming occluded by its excessive secretion affords ideal conditions for the growth of staphylococci. Acute purulent infection and the evolution of a typical sty follow.

The sty is seen as a hard, red and painful swelling of the skin of the lid situated close to its free border. After several days to a week its contents become purulent, a yellow area of pointing develops at the lid margin, the sty ruptures, discharges its contents and promptly heals.

This natural course may be shortened by instructing the patient to place hot, moist applications over the affected eye for periods of thirty minutes, four times daily. A wash cloth soaked in water obtained directly from the hot water tap is the best and most convenient means of applying heat. When pointing occurs, the sty should be incised. The hot applications should be con-

tinued for several days in order to speed healing, and the eye irrigated every four hours by five drops:

Boric Acid -----grains x  
Distilled water to make-----ounces i

In case of repeated styes, between their occurrence, instruct the patient thoroughly to massage the lid margins for a period of five minutes three times daily with:

Yellow Oxide of Mercury 1%--drachms i  
(ophthalmic ointment)

The continued appearance of styes demands that the patient be refracted under cycloplegia and fitted with proper glasses. Since, in most cases, the fundamental condition behind the development of the sty is an error in refraction, the patient cannot expect to obtain relief until his refraction is corrected.

The meibomian glands are also subject to acute staphylococcic inflammation (hordeolum internum) which may arise through much the same mechanism as the sty. In this situation the inflammation is confined within the unyielding and dense tissue of the tarsus. The result is the production of tremendous edema of the lid, the conjunctiva of the lid and, at times, the conjunctiva of the eyeball. Indeed, the swelling of the lid may be so great as to cause some difficulty in locating the hard area of induration which marks the site of the inflammatory process. The patient suffers pain of truly exquisite intensity. In the course of time the meibomian gland is destroyed; pointing and rupture into the conjunctival sac with subsequent spontaneous healing follows. The patient will be spared long hours of agonizing pain if, when the diagnosis is made and the area of induration located, the affected meibomian gland is incised from its conjunctival surface. This will cause prompt relief of tension with drainage of any pus which may have formed or will form later. Subsequent treatment should include hot applications and irrigation of the conjunctival sac as suggested for the treatment of the sty.

#### CHALAZION

Chalazion is a granulation tumor of the meibomian gland of unknown etiology. A slightly elevated, yellowish area is seen beneath the conjunctiva and a firm mass is palpable through the skin of the lid. Often these tumors elevate the skin of the lid, and they may attain considerable size. Such tumors are entirely painless and benign in character. They are brought to the patient's attention either as a result of the cosmetic blemish of the tumor mass or because of a feeling of a foreign body which results from the extension of the tumor through the conjunctiva. Rarely they are treated successfully by the use of hot applications for thirty minutes four times daily followed by the thorough massage into the lid of 1% yellow oxide of mercury ointment for a period of ten minutes. Such cases are best handled by the immediate surgical removal of the chalazion.

#### OCCCLUSION OF THE NASO-LACRIMAL DUCT

Occlusion of the naso-lacrimal duct (congenital dacryocystitis) is a condition noted during the first few days of life. It may be unilateral or bilateral and is characterized by tearing and the presence of a mucoid discharge in the conjunctival sac of the affected eye unaccompanied by evidence of inflammation of the conjunctiva. This condition is a developmental anomaly, the direct result of failure of the naso-lacrimal duct to open into the inferior nasal meatus. Normally this opening is effected shortly before the birth of the fetus. The treatment of this condition may be entirely expectant in as much as spontaneous recovery can be expected up to the sixth month of life. The mother should be taught to express the sac contents by pressure of the finger at each feeding time and to follow expression by irrigation of the eye with:

Boric Acid -----grains x  
Distilled water to make-----ounces i

In general this treatment will keep the eye clean and free from infection until the naso-lacrimal duct becomes patent. Thereafter all signs of obstruction disappear and do not recur. Should the occlusion remain unabated for longer than six months, only surgical treatment can be expected to afford relief.

#### CROSSED EYES

One of the most annoying conditions called to the attention of the general practitioner is that of squint (crossed eye) in the young infant. Almost inevitably the mother or the grandmother has read extensively of this subject in the lay press, so that they demand to know whether baby's squinting eye should be bandaged, fitted with a glass or simply left to squint and grow blind. An intelligent answer to such questions requires a certain amount of knowledge concerning the evolution of binocular vision.

Vision in the adult is a composite cerebral interpretation of the images viewed by each of the two eyes. To attain this result a governing center in the brain must keep the eyes so directed that an identical image is formed in each. In the normal new-born infant this brain center is present but undeveloped. The infant, therefore, does not fuse the images seen by each eye and may often be observed to have the eyes directed in grotesque and anomalous positions. The occasional accidents which bring the eyes to observe the same object apprise the infant of the better visual result that is enjoyed by single vision. As the infant exercises this newly found sense he develops the brain center for fusion. As this center develops the infant gradually completely gives up dissociated vision in favor of single binocular vision, and the squint which was, at one time, a common occurrence in one or the other eye altogether disappears, leaving the eyes in the normal position of parallelism. This normal state of the visual sense is generally reached by the sixth month of life, but an occasional squint need not be considered abnormal up to



the twelfth month. Should there be a congenital absence of the fusion center or should the development of fusion be handicapped by far-sightedness, a squint which occurs occasionally at first in either eye grows more and more frequent finally to become a constant deviation of one eye.

On the basis of this knowledge, parents can be advised that an occasional squint occurring in either eye in an infant up to six months of age may be an entirely normal phenomenon with no dire significance which requires no treatment. In infants older than six months, squint which occurs with decreasing frequency, usually when the child is tired or ill, can be disregarded. However, if, after the first year, the deviation is found more and more often in one eye and occurs with greater frequency, the parents should be advised that ocular pathology exists which requires for its treatment the services of a well trained ophthalmologist if the child is to develop with normal vision.

#### CAR-SICKNESS

Car-sickness occurring frequently in a child should be considered highly suggestive of ocular disorder, for nausea and headache are frequent symptoms of disturbance in the balance of the external ocular muscles and are often precipitated by viewing a rapidly changing scene (panoramic phenomenon). The normal pair of eyes should be so situated anatomically that, with the fusion sense suspended, they each view the same object in infinity. In the absence of this normal anatomic state, the fusion sense must impel the eyes into such a position. To do so requires, of course, abnormally great effort. When to this effort is added that normally required to keep the eyes in fixation upon a moving landscape, exhaustion quickly follows and the symptoms of the panoramic phenomenon (nausea and headache) appear. While all cases of car-sickness are certainly not the result of ocular pathology, yet this possibility should not be overlooked, so that it is wise to refer such cases to the ophthalmologist for careful study of their refractive condition under cycloplegia. Meanwhile these children can be greatly relieved if a heavy dark glass is prescribed for wear while riding in a moving vehicle. This expedient so blurs the ocular images as to suspend the fusion sense which, if inoperative, cannot by its exhaustion initiate the symptom complex of the panoramic phenomenon.

#### CHEMICAL AND THERMAL BURNS

Burns by acid or alkali are serious ocular accidents which require skillful treatment by the most expert hands. The results, even so, are not always the best. Nevertheless, the general practitioner has the responsibility of administering emergency treatment to injuries of this character. The principles of such treatment are two: (1) mechanical removal or chemical neutralization of the offending agents, and (2) relief of the severe pain from which these patients suffer. Acid reacts

with tissues to form acid proteinate, an impermeable substance, which serves to protect the deeper lying tissues from injury. Alkali forms alkaline proteinate which, because it is quite permeable, allows continuous penetration of the chemical agent into deeper tissues. Consequently, in acid burns, the first principle of treatment is satisfied by mere mechanical removal of any residual acid by irrigation. In alkali burns neutralization may be added to mechanical removal so that the superficially affected tissues will present an impermeable surface of acid proteinate as a barrier to deep penetration of the alkaline agent.

Acid burns should be treated by immediate copious but gentle irrigation of the eye with large quantities of tap water until all acid has been removed. The eye should then be desensitized by the instillation of anesthetic solution:

Butyn -----grains v  
Distilled water to make-----ounces ss

One drop should be instilled at three minute intervals until there occurs marked relief of pain. The conjunctival sac should then be filled with a generous amount of ointment containing an anesthetic and an antiseptic agent:

Ophthalmic ointment -----drachms i  
Butyn 2% and Metaphen 1:3000

The injured eye should then be closed, the lids covered with a small amount of cotton wool and an eye pad applied and tightly fastened in place by strips of adhesive tape secured over the forehead and zygoma.

Alkali burns should be handled similarly with the single exception that the immediate irrigation is performed with a weak acid solution:

Dilute Acetic Acid-----ounces iss  
(vinegar may be substituted)  
Distilled water to make----- ounces viii

Should this solution be not immediately available, tap water may be substituted, the irrigation with acid being performed just as soon as the proper solution can be obtained.

The treatment of thermal burns, except in cases resulting from hot metallic foreign bodies, presents no problem of removing the injuring agent. Relief of pain and separation of burned surfaces to prevent the formation of adhesions between the eyelids and the eyeball need be the only considerations. Thermal burns should, therefore, receive the emergency treatment suggested for chemical burns following immediate irrigation, with the additional precaution against the formation of adhesions of placing a pledget of cotton soaked in sterilized mineral oil between the lid and the burned surface of the eyeball.

#### TRAUMATIC EMERGENCIES

Severe lacerating or penetrating injuries of the eyeball constitute serious threats to the integrity of the eye and demand for their care immediate surgical treatment. The emergency treatment administered before such care can be provided is of

the greatest importance in determining the final outcome of the case. The chief consideration of such treatment should be the protection of the injured eye against loss of the vitreous or extrusion of the lens or iris through open wounds. Pain of any severe character is most often absent; if present, general sedation by opiate is advisable. If the foreign body causing the injury is seen within the conjunctival sac or embedded in the

walls of the eyeball it should be removed with sterilized forceps after the eye has been thoroughly irrigated with antiseptic solution:

Mercuraphen ----- grains 3/50  
Distilled water to make ----- ounces 1

The lids should then be closed, cotton wool applied, and an eye pad fastened snugly in place. Surgical treatment should then be sought without delay.

522 HUME MANSUR BUILDING

## RABIES IN INDIANA

### SURVEY 1926 TO JUNE, 1938, WITH ANALYSIS OF HUMAN DEATHS\*

A. W. RATCLIFFE, M.D.

Hammond

The study to be presented was undertaken with the hope that it might yield information helpful in dealing with the public and individual health problems of rabies prevention. It seemed desirable to learn whether the disease in animals is increasing as previous studies<sup>1</sup> had suggested it was likely to do; whether the law, effective in 1935, which allocated responsibility for "Pasteur" treatment of indigent citizens to the local governmental units rather than to the state has exerted discernible effect in reducing the incidence of rabies; and whether our criteria<sup>2</sup> for advising "Pasteur" treatment are supported by the actual behavior of the disease in Indiana.

Such a study necessarily forced resort to indirect sources of reference. The element of error thus introduced at least prevents any biased personal opinion of the author from affecting the entire study. The method of investigation was as follows. Records of the Bureau of Bacteriology and Pathology of the Indiana State Board of Health provided figures for the occurrence of rabies in animals; while perhaps not all inclusive, this was the only known source which seemed at all representative. The same source provided figures for the number of patients receiving free treatment prior to the statutory change mentioned above; the previous law was very liberal and these figures are probably more representative than they might otherwise be. The number of patients receiving free treatment since the law was changed has been compiled from a study of the "free antitoxin and vaccine" cards which are returned to the State Board of Health each time material for treatment is provided; these figures are most likely incomplete. The Bureau of Vital Statistics of the Indi-

ana State Board of Health furnished copies of the death certificate of those cases in which rabies was listed as a cause of death; this information has been checked and supplemented by questionnaires sent to the physician who signed the death certificate in each case.

The number of animal heads found to contain Negri bodies and the number of patients receiving free anti-rabic vaccine in correlation with the reported human deaths from rabies for each year from 1926 to 1937 inclusive is shown on the graph in Figure I. It appears that there is a definite correlation between these figures. The figures presented above as yearly figures were actually obtained from monthly reports and it is interesting to note the incidence of positive animal heads obtained by taking the average of the monthly figure for each year and presented in Figure II.

During the twelve and one-half year period, 1926 to June, 1938, 11,478 animal heads were examined in our laboratory; of these 6,172 contained Negri

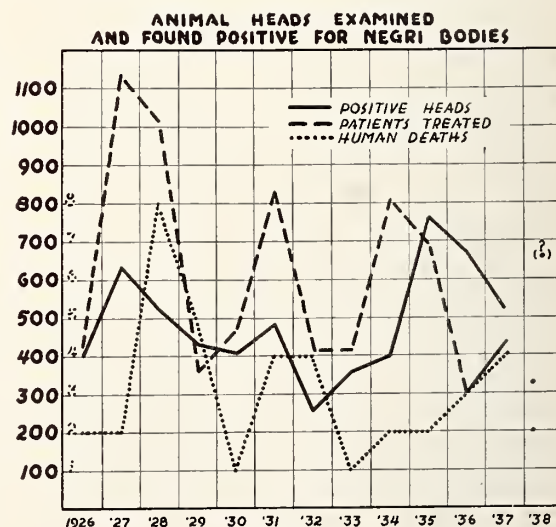


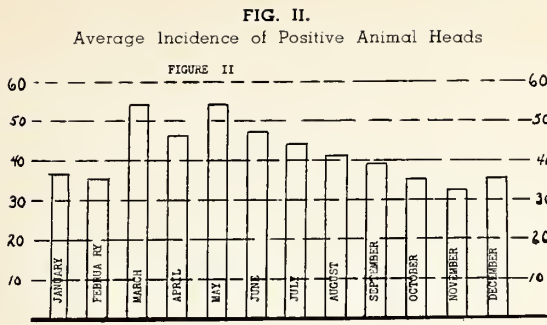
FIG. I.

\* From the Bureau of Bacteriology and Pathology, Indiana State Board of Health.

<sup>1</sup> Thurman B. Rice: Ten Years of Rabies in Indiana. *J. Indiana St. Med. Assoc.* 21:185, May, 1928.

<sup>2</sup> V. K. Harvey and C. G. Culbertson: Management of Patients Exposed to Rabies. *J. Indiana St. Med. Assoc.* 28:284, June, 1935.





bodies. Seven thousand six hundred fifty-nine patients received free anti-rabic vaccine. The review of the human deaths from rabies is probably the most interesting and instructive part of the study and therefore will be presented in greater detail. The following figures were obtained from the Bureau of Vital Statistics as the reported deaths from rabies in Indiana.

Year	Deaths from Rabies	Year	Deaths from Rabies
1909	7	1924	0
1910	4	1925	0
1911*	4	1926	2
1912	2	1927	2
1913	5	1928	8
1914	0	1929	5
1915	1	1930	1
1916	0	1931	4
1917	2	1932	4
1918	0	1933	1
1919	1	1934	2
1920	1	1935	2
1921	1	1936	3
1922	0	1937	4
1923	1	1938 (6 mo.)	2

\* Pasteur treatment first available in Indiana.

From these figures it is apparent that rabies was reported as the cause of death in forty human cases during the period under investigation (1926-June, 1938). The map in Figure III represents an attempt to spot these cases according to the geographic site of infection rather than of death.

The details we were able to collect concerning these cases are shown in Figure IV and are self explanatory although somewhat confusing en masse. The following analysis of this information is presented:

- Time covered in this survey: 12 yrs. and 6 mos.
- Number of deaths reported: 40
- Average No. of deaths per year: 3.2
- No. of questionnaires sent out: 40
- No. of questionnaires returned: 34 (85%)
- (Physician deceased in cases No. 2 and No. 7)
- Racial incidence: white, 37 (92.5%); Negro, 3 (7.5%).
- Sex incidence: male, 31 (77.7%); female, 9 (22.3%).
- Age incidence: infancy to 5 years, 10 (25.0%); 6-10 years, 5 (12.5%); 11-20 years, 7 (17.5%); 21-30 years, 1 (2.5%); 31-40 years, 5 (12.5%); 41-50 years, 6 (15.0%); 51-60 years, 1 (2.5%); 61-70 years, 1 (2.5%); 71-80 years, 4 (10.0%).

Animal Exposure, source of: Dog, 35 (87.5%); Cat, 2 (5.0%); Cow's milk, 1 (2.5%)\*; Not stated, 2 (5.0%).

Nature of Exposure: Bite, 32 (80.0%); Scratch, 2 (5.0%)\*; Drinking of milk, 1 (2.5%); Took care of sick dog, 1 (2.5%); Not stated, 4 (10.0%).

1 case (No. 35) was bitten by dog and scratched by cat; this is classified as dog bite.

Examination of Animal Brain: Examination made in 7 cases, (17.5%); Negri bodies demonstrated, 6 cases (15.0%) of the series.

Low figure because of low incidence of examination.

Negri bodies demonstrated, 6 cases (85.75%) of examinations made.

The one brain examined in which Negri bodies were not demonstrated was from a dog which had been killed rather than allowed to die as result of its illness.

TREATMENT OF PATIENTS

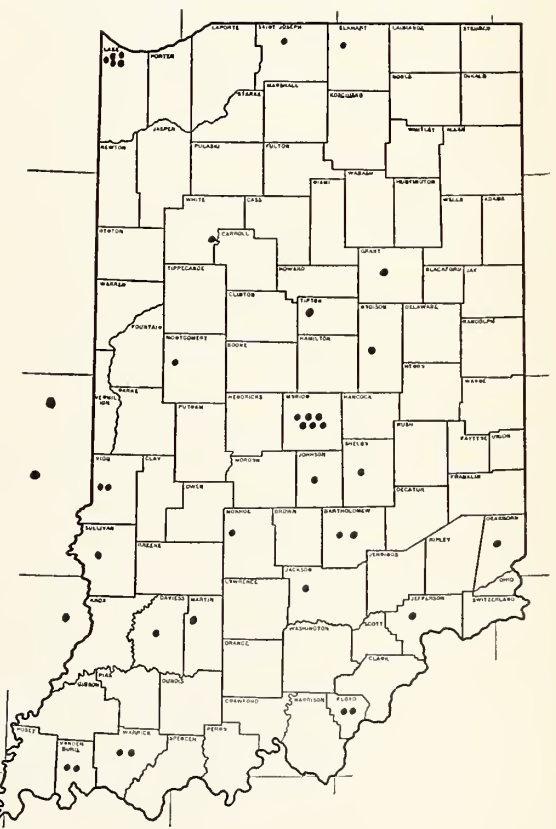
Local Treatment of the Wound: Wounds were known to have been present in 34 cases. Wounds were presumed to have been present (not stated) in 4 cases; records are incomplete as to treatment in these cases.

Local treatment is stated to have been given in 15 cases.

\* See later discussion.

FIG. III.

Human Deaths from Rabies as Reported in Indiana—1926 to June, 1938. Plotted by Site of Infection.







On basis of 38 cases presumed to have had wounds this represents 39.5% treated.

On the basis of 34 cases known to have had wounds this represents 44.1% treated.

This low figure seems to be partially explained by the fact that in many instances the individuals wounded failed to consult a physician.

This, however, does not account for the fact that of the 15 cases receiving local treatment, only 2 (13.3%) were treated with nitric acid. Of the 38 cases, judging from the available information, only 5.26% received the recommended local treatment with nitric acid.

*Pasteur Treatment:* Treated, 12 (30.0%); Untreated, 28 (70.0%).

Of the 12 cases treated 1 case (No. 16) received the first Pasteur treatment on the 19th day after exposure, died the same day, and probably should not be regarded as a treated case. This alters the preceding figures as follows:

Treated, 11 (27.5%); Untreated, 29 (72.5%).

*Days elapsing from exposure to initial treatment:*

Cases	Days
No. 3	3*
No. 4	4*
No. 12	1*
No. 16	19
No. 22	3
No. 24	2
No. 25	unknown
No. 27	3*
No. 33	unknown
No. 36	2*
No. 38	0
No. 39	13*
—	—
12	50

Average number of days lost, 5 (variation 0 to 19).

It is interesting to notice in cases No. 16 and No. 39 with 19 and 13 days lost respectively that in both cases the wound was on the face and was inflicted by a proved rabid dog.

#### *Necropsy*

Necropsy done in: 16 cases (40%)  
 Negri bodies demonstrated in: 14 cases (35%)  
 No record in: 2 cases ( 5%)  
 Necropsy not done in: 24 cases (60%)

#### *Proved Cases*

Therefore we regard only these cases (14—35%) in which Negri bodies were demonstrated as proved cases of rabies. The remaining 65% must be regarded as unproved largely because necropsy was not done.

In studying more in detail the proved cases, we find that:

#### *Of the Proved Cases:*

Wound above clavicle: 7 cases (50.0%)  
 Wound below clavicle: 4 cases (28.5%)  
 Wound location not stated: 2 cases (14.3%)  
 No wound: 1 case ( 7.2%)  
 Received Pasteur treatment: 6 cases (42.8%)  
 No Pasteur treatment given: 8 cases (57.2%)

#### *Analysis of Proved Cases Correlating Location of Wound and Treatment*

##### *Wound Above Clavicle*

Treated: 5 cases with an average lapse of 2.8 days before initial injection. Not treated: 2 cases.

##### *Wound Below Clavicle*

Treated: 1 case with lapse of 2 days before initial injection. Not treated: 3 cases.

##### *Location of Wound Not Stated*

Treated: none. Not treated: 2 cases.

##### *No Wound*

Treated: none. Not treated: 1.

##### *Incubation Period in the Proved Cases*

The date is not given in 1 case and the dates are approximated in several of the others so that on the basis of 13 proved cases the average incubation period was approximately 43.2 days with variation 18 to 120 days.

#### *Correlation of Location of Wound, Treatment, and Incubation Period*

##### *Wound Above Clavicle*

Not treated: 2 cases; average incubation 22.5 days, (with variation 21-24 days).

Treated: 5 cases; average incubation 37.8 days, (with variation 18-92 days).

##### *Wound Below Clavicle*

Not treated: 2 cases; average incubation 39.7 days (incubation unknown in 1 untreated case) (variation 30-49 days.)

Treated: 1 case, incubation 37 days.

##### *Location of Wound Unknown*

Not treated: 2 cases; average incubation 90 days (with variation 60-120 days).

Treated: none.

##### *No Wound*

Not treated: 1 case; incubation 30 days.

##### *Duration of Disease in Proved Cases*

Average duration in 13 cases (1 case unknown) was 4.6 days (variation 2-7 days).

Average duration in 7 untreated cases was 4.8 days (variation 2-7 days).

Average duration in 6 treated cases was 4.5 days (variation 3-7 days).

#### DISCUSSION

From Figure I, it appears that the incidence of rabies in animals has shown four year cycles with alternate major and minor peaks. The previous study by Rice<sup>1</sup> pointed out 1923 as a low ebb of the disease; in the present study a rather definite low point occurred in 1932, a nine year interval. It is suggested that a similar low point may occur about 1941 and that that would be the strategic time for drastic measures to control or eradicate the disease.

It also appears that a definite correlation exists between the number of positive animal heads and the number of patients treated. It appears that the number of patients treated shows a significant decrease from 1935 to 1936; however, the possible

\* Proved Cases.

incompleteness of our records at this point renders this somewhat questionable.

We believe that there is definite correlation between the number of human deaths and the number of animal cases although the small numbers involved in the former factor are not entirely convincing.

A study of animal rabies by counties (significance of details does not warrant their inclusion) shows that in the fiscal years of 1935, 1936, and 1937 the three original foci observed by Rice<sup>1</sup> have almost lost identity in the spread of the disease through the southern half of the state. The fourth focus in Lake County is still distinct although the northern counties are gradually becoming more involved. Marion County still leads with 269 positive heads in 1935, 208 in 1936, 166 in 1937, and 90 in 1938 (fiscal year ending June 30th). From these figures it appears that during the past three years considerable progress has been made in Marion County in curbing rabies. We believe that this is a reflection of the statutory change already mentioned which probably has been a factor in further control measures in Indianapolis, namely more rigid enforcement and a city ordinance (1937) making a certificate of anti-rabic vaccination a prerequisite in securing a city dog license. The number of positive heads from Marion County in the first three months of the 1939 fiscal year indicates the probability of still further decrease for this year.

The reported human cases presented in Figure IV indicate that the incidence is highest in childhood, 25% of these cases occurring during the first five years of life and 37.5% during the first decade. This is not surprising but serves to emphasize the need for careful watch on the part of the parents and for a rather liberal attitude on the part of the physician in prescribing anti-rabic vaccine for children.

While we regard as proved cases only those in which Negri bodies were demonstrated, it is only reasonable to believe that most of the remaining cases were also rabies. However, at least two of these are very questionable:

*Case No. 2.* The physician who signed the death certificate giving hydrophobia as the cause of death is deceased. From another physician who investigated the case at the time we learn that, while there was a history of dog bite, the circumstances and symptoms preceeding the death of the patient (a hypertensive) are more suggestive of some cerebral accident than of rabies.

*Case No. 33.* The only history of exposure was in drinking milk from a cow which died of proved rabies. Fourteen injections of anti-rabic vaccine were given to the patient, a child of 2 years. The patient died 20 days after the vaccine was started. The date of the onset of symptoms and consequently the duration of the illness is unknown. We are informed by a physician (Board of Health Staff) who was interested in the case at the time

of death that there was a period during the illness when the child showed some improvement; this is significant evidence against rabies. We suspect that this case was one of encephalitis, following the vaccine, which may sometimes rather closely simulate rabies. Recent attempts<sup>3</sup> to transmit rabies by feeding milk from rabid animals and even emulsions of positive brain were unsuccessful.

The possibility of contracting the disease from dogs as a result of scratches by the claws without an actual bite has been debated.

*Case No. 15.* The patient cared for a sick dog and approximately 1 month later died with Negri bodies in the brain. No history of bite could be obtained although the sources of reference after the death of the patient were considered by the investigator to be inadequate.

*Case No. 16.* This is reported as a scratch on the face. We can not be certain whether the scratch was inflicted by tooth or by claw.

*Case No. 26.* The patient was scratched on the leg by the claws of a dog under such circumstances that subsequent inoculation with saliva seems likely. Symptoms typical of rabies developed "several weeks" later and the patient died after 6 days. Necropsy was not done.

Concerning the unproved cases, there is but little to say. The incubation periods in cases 1, 9, 14, and 29 either tend to exclude them as rabies or to indicate that a shorter incubation period than is commonly regarded as minimal is possible.

The fact that six proved cases received "Pasteur" treatment and yet progressed to fatality is evidence that the method is not infallible. Having no basis for attempting to say whether the vaccine used in these cases was outdated or impotent for some other reason we assume that it was a satisfactory preparation.

During the past summer the technician doing examinations for Negri bodies remarked several times that he noticed increased difficulty over previous years in finding positive evidence in brains from what seemed typical cases of rabies. Since vaccination against rabies has been more prevalent, especially in Marion County, during the past year, we wish to quote Leach<sup>4</sup> who says that according to his experience Negri bodies are more difficult to demonstrate in the original brain material from animals vaccinated against or treated for rabies and when a vaccinated dog develops the disease it is usually

<sup>3</sup> Kaufman and Davidson: An Experiment on the Transmission of Rabies Through Milk. *Medical Record*. 146:509, December 15, 1937.

<sup>4</sup> Leach: Comparison of Methods of Rabies Diagnosis in Animals. *Amer. Jour. Public Health*, Supplement. 28:162, 1938.

*Cases Previously Published*

No. 3, No. 4. Two Human Cases of Rabies. (Thurman B. Rice) *J.A.M.A.* 91:1631, November 24, 1928.

No. 36. Death from Rabies Following Pasteur Treatment: Case Report (Geo. E. Moses) *Journal Indiana State Medical Association*. 30:237, May, 1937.



the paralytic or dumb type and the experienced veterinarian's diagnosis is of the utmost importance since Negri body diagnosis is unreliable.

We do not do mouse inoculation tests routinely in the examination of animal heads for rabies. There are two reasons for this: (a) additional funds for this work are not available at present and, even more important, (b) we believe that the practical information to be gained would in no way compensate for the potential danger of creating such an artificial reservoir of rabies virus.

#### SUMMARY

During the twelve and one-half year period from 1926 to June, 1938, inclusive, Negri bodies were found in 6,172 of 11,478 animal heads examined in the Indiana State Board of Health Laboratory, and 7,659 patients received free "Pasteur" treatment.

During the same period 40 human deaths were reported as resulting from rabies. Necropsy was done in sixteen of these cases and Negri bodies were demonstrated in fourteen of them. Infection most frequently followed the bite of a dog but, in three cases, the history indicates that infection came from dogs without bites being sustained by the victims. One death is reported following the sole exposure of drinking milk from a rabid cow; this is discounted.

In the series of thirty-eight cases wounded, 39.5% received local treatment. Some of these were apparently self treated and only 5.26% received the recommended treatment with nitric acid.

Of the entire series of forty cases only 27.5% received "Pasteur" treatment.

The shortest observed incubation period in a proved case was 18 days. The significance of shorter incubation periods in some of the unproved cases is discussed.

In the untreated proved cases with the wound above the clavicle the average incubation period was 22.5 days as compared with an average of 39.7 days when the wound was below the clavicle.

The average duration of the disease was 4.66 days with no significant difference between the treated and untreated cases.

The number of positive animal heads examined has been decreasing since 1935; the significance of this is discussed briefly but inconclusively.

#### CONCLUSIONS

1. A survey of rabies in Indiana from 1926 to June, 1938, is presented. Although statistically inadequate, it reveals no reason for modifying the criteria used in recommending "Pasteur" treatment to persons bitten by or exposed to rabid animals.

2. There is need for still further education of the public to the danger of bites from sick or stray animals and the necessity of early prophylactic care at the hands of a physician who is well informed in its application.

## FORT WAYNE CONVENTION

OCTOBER 10, 11 AND 12, 1939

### RECEPTION COMMITTEE

It is the desire of the reception committee of the Fort Wayne Medical Society not only to welcome the visiting physicians and their wives to the state meeting here, but to make their sojourn among us as pleasant as possible.

With these objectives in view, our members hope to contact each physician personally upon his arrival, either by train or auto, and to escort him to the established headquarters of the society for registration. Aid will be provided for all guests in securing hotel accommodations.

Each of our eighteen committee members will be identified by "Reception" ribbons.

The hospitals extend a cordial welcome to the visiting physicians to visit them and this invitation is joined by many of the large industrial plants who will provide guides for trips of inspection.

Our city officials all are anxious to prove that Fort Wayne, while rich in history and varied activities, is primarily a city of true hospitality.

The opening address of welcome will be delivered by the Mayor.

L. W. ELSTON, *Chairman,*

Reception Committee.

### SOCIAL NORMALCY REQUIRED FOR REHABILITATED CRIPPLE

A normal place in society, rather than an extension of his status as a dependent, should be the goal for the rehabilitated cripple, Mather Cleveland, M.D., New York, says in the February issue of *Hygeia, The Health Magazine*.

Overdone kindness, in the form of entertainment, excursions, food and clothing, may give the crippled child the feeling that he is entitled to more than his share of attention, the author warns.

"Prolonged association with other cripples and constant comparison of achievement on a scale which is below standard have a tendency to make him unfit to assume his place in the community," Dr. Cleveland points out. The author believes, therefore, that the home environment is preferable whenever possible, although the financial burden necessary for proper surgical care, education and psychologic and vocational training should be shifted to the community.

Today, a normal life for the cripple is possible because of the increased concern of society with his problem. Whereas primitive tribes do not allow sickly or deformed children to survive, modern society strives for rehabilitation of the cripple and for the prevention of crippling diseases. Infantile paralysis, estimated to cause from 29 to 35 per cent of crippling among children, is being fought in many laboratories and clinics. Tuberculosis, which ranks second, is definitely declining after a prolonged campaign.

## THAT ACUTE BELLY\*

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There is nothing in medicine or surgery more dramatic than the acute conditions which can be brought together under the heading of "That Acute Belly." No drama moves more swiftly, no drama excites higher emotions, no drama reaches its climax with greater speed, and no greater responsibility is ever borne than by the chief actor in this play, the physician.

The conditions surrounding the sufferer are usually unsatisfactory, the room is crowded with tearful, anxious relatives, the light is poor, the bed is low and wide, and there is always one stern, unfriendly individual present who does not believe in either hospitals or operations. These conditions may not exist in the hospital, but even here the big problem of diagnosis causes the physician or surgeon enough confusion and anxiety. He must soon make up his mind as to whether this is a surgical or medical case. In most cases a diagnosis by history and clinical examination alone can be made. Pain is the most constant and outstanding symptom of the acute abdomen. Continual abdominal pain usually indicates a surgical condition. The overflow pains from the chest to the abdomen are not so constant and disappear or modify in a few hours.

In the diagnosis of these cases it is well to remember, as Moynihan points out, that few abdominal catastrophies are in the strict sense acute but rather they are the result of an abrupt transition from a quiescent to an acute phase in a disorder of long standing.

The importance of an accurate history is quickly seen because, in a great many instances, the history alone may give the important clue or even the diagnosis itself.

One of the first decisions to make in the handling of this type of case is to determine as rapidly as possible whether this is a surgical or medical case in so far as the treatment is concerned. Because of the rapidity with which the patient may change from a good risk to one that is bad or hopeless, it becomes very important that a diagnosis be made at the earliest possible time. Delay may change the acute abdomen to an abdomen with peritonitis. This not only is the bugbear of the surgeon but, as Deaver pointed out, it so often clouds the picture that it makes a differential diagnosis or a positive diagnosis impossible; it is, therefore, no exaggeration to say that for an acute abdomen the surgeon can never be called too early, but he may be called too late.

Any pain in the abdomen that lasts longer than six hours in a previously healthy person, with

constipation and with nausea and vomiting, is usually surgical. However, with diarrhea, it is just as surely medical. The tenderness that develops with the pain is the next important factor, for, with it present, a definite location can be determined providing the organ is normally placed. The laboratory findings are important if they fit in with the clinical picture, but certainly a low or a high leukocyte count should not alter the decision to operate or not to operate if the picture clinically was demanding immediate attention. Of course, with the acute belly, there is never time to do the more complicated and refined laboratory tests.

The physical examination should be done as fully and carefully as conditions will allow, and I want to emphasize again that rectal and vaginal examinations still are being done and are really important in many cases in deciding just what is the matter with a particular patient. Once the condition is determined to be surgical, and the operative treatment to be used for its relief is decided upon, then relief may be given with morphine but not sooner for fear we will cover up our best aids in making the diagnosis and even give ourselves a false sense of security.

After the endeavor to relieve pain is made, the next important procedure is to get the patient in the best possible condition for the operation.

Pre-operative and post-operative care are equally important with the correct mechanical method of operation, the adequate conduct of which bears a close relationship to the mortality of the lesion under consideration.

Water composes about 70 per cent of the body weight of man and is a very necessary component of all living cells. Cell activity is affected when the total water content is varied in either direction from normal and, as a result, the clinician must focus his attention more and more on the fluid and salt requirements of the surgical patient. The acute abdominal crisis of an obstructive or suppurative character and the disorders of the intestinal peristalsis prohibits fluid by mouth, and other means of giving them must be found.

In the majority of cases of vomiting, the major ions lost are sodium chloride and bicarbonate which finally disturb the carbohydrate metabolism and there results both an alkalosis and a ketosis or an acidosis and a ketosis.

The storage of tissue in the body requires fluids. The dehydration causes an increased viscosity of the blood, added work on the heart with a tendency to reduce blood pressure, decrease oxygen supply to the tissues, and causes a disturbance of the heat regulating mechanism which in turn causes

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an increased evaporation and loss of fluid by sweating.

Then there is the decreased urinary output which causes the piling up of the poisonous metabolic products in the tissues.

The existence of dehydration can often be determined by the texture of the skin and mucous membranes. In a patient with an acute abdomen, we have three methods of replenishment, namely, (1) rectal and colonic, (2) subcutaneous, (3) intravenous.

(1) The rectal and colonic method rarely gives enough. It may set up peristalsis and if glucose is required very little can be absorbed.<sup>1</sup>

(2) The subcutaneous method is not painless and it is not absorbed with a failing circulation. Also glucose,<sup>2</sup> even in low concentrations, is not without danger to the tissue.

(3) With the intravenous or continuous type of replenishment, large amounts of saline can be given with a slow drip method. Normal sodium chloride corrects dehydration and the reaction ketosis is corrected by glucose 5 per cent, 3000:3500 solution each 24 hours with 150 grams<sup>3</sup> of glucose per diem is recommended. Continuous intravenous, if carefully supervised, is the most useful in the very sick patient.

The most common cause of an acute belly is appendicitis and it still causes most of our surgical abdominal deaths. This is caused by the use of purgatives before the physician is called, delay in calling the physician, use of morphine whereby real pain is covered up and, lastly, fear of the surgery and cases in which the operation has been put off by the patient after diagnosis has been made. The earlier the operation is done before rupture, the better the chances are for good recovery. When seen after rupture and abscess formation, conservatism is certainly the better part of valor. It is better to drain an abscess and save a life than to remove an appendix and get a peritonitis and perhaps death.

Another common inflammatory disease of the abdomen is cholecystitis. Although a very painful condition, this seldom causes general peritonitis and these patients in particular should be carefully prepared for operation, giving special attention to glucose and water content of the body. Whether the gall-bladder should be removed depends, of course, on the case at hand. However, removal is usually preferable.

The other common inflammatory disease is salpingitis and this in particular is best handled by taking plenty of time, letting the fire die out, and allowing the patient to build up her resistance which must be present if these cases survive.

A perforated ulcer is a suddenly appearing catastrophe which usually occurs following over-

indulgence in either solid or liquid nourishment. The pain is not relieved and the abdomen soon assumes the commonly termed "board-like" character. Speed in diagnosis and speed in remedying the condition is very essential in this condition if we save our patient. Extensive operations are seldom advisable. To repair and cover the perforation with omentum and supply proper drainage is one of the important factors in this surgical condition.

The cause of obstruction of the bowels should be carefully searched for. A scar on the abdomen is a wonderful help in making the diagnosis. The hernial orifices should be carefully examined. A history of some previous surgical procedure is usually present but not necessarily so. Intermittent regular pain with constipation and the feeling of a mass are most helpful in making this important diagnosis. All too often these patients are finally diagnosed after they are practically moribund, they lack fluids and salts particularly following their constant vomiting. By all means fluids and salts must be restored before any surgical intervention is attempted. Then relief of the obstruction and the saving of a life is the primary consideration rather than a resection which the patient may not endure. After the obstruction is relieved, a second operation on a healthier individual is much to be preferred.

Ectopic pregnancy with rupture causes a sudden sharp pain which may cause sudden collapse. The previous history may or may not be helpful. The addition of fluid or even blood before surgical measures are instituted gives the best results.

Ovarian tumors with twisted pedicles are very confusing at times. Principally because no one knows of the presence of the tumor. The pain is very severe and unrelieved with morphine and tends to extend toward the back and flank.<sup>4</sup> The removal of the tumor, of course, gives the only sane relief.

Acute pancreatitis is the most devitalizing and severe pain the human body has to endure. The shock is severe and rapid. The patient rapidly gets toxic and the pains tend to be more severe in the lumbar and left scapular region.

Diverticulitis now seems to be a more common abdominal condition but because of its variability as to cause and location, it is seldom diagnosed until after the abdomen is opened in the search for the cause of the acute abdomen. The more conservatively these cases are handled, the better will be the results obtained.

The after care of the acute belly is just as important as the pre-operative attention and the mechanical surgical operation itself. First of all, the patient must be kept fairly free from pain, and morphine is our best remedy. Given in small doses but regularly is usually best. Fluids, 3,000 to 5,000 cc. daily, are necessary for normal body reaction with glucose 5 per cent in normal saline

<sup>1</sup> Eberlin, W. W.: *Arch. Surgery*, 1933, xxvi.

<sup>2</sup> Ravdin, I. S. & Johnston, C. G.: *Ann. Surg.*, 1933, xcvi.

<sup>3</sup> Maes, Urban.: *Journal Surgery*, 6-16974, Feb. 1929.

<sup>4</sup> Stern, Elias: *Amer. Journal Surgery*, Jan. 1930.

if given intravenously, 2½ per cent glucose if given subcutaneously.

The rectal drip allows no absorption of glucose and the fluid absorption is not accurately estimated and in most hands acts as an irritating continuous enema. A life saving measure many times in the patient who has lost a great deal of blood and is a poor risk at best is the use of the intravenous blood transfusion. The method of giving the blood is not so important, merely proper typing and the addition of the whole blood to the depleted sick is the essential thing.

For the control of distention, nausea, and vomiting, the most important single aid has been the use of the retained duodenal tube with continuous suction as described by Wangensteen. Not only does this method remove gas and fluids, but the patient is given the pleasure and encouragement of drinking anything that will come back up the tube.

Enemas given on the third or fourth day in a case of active peritonitis is similar to a cathartic given before operation especially if an energetic nurse is particularly good at giving so called "high enemas." Purgatives as well as so called "high enemas" should be refrained from until all signs of acute peritonitis have disappeared. We have all seen cases doing nicely until the third morning when an enema or a cathartic was given. A new flare-up results or even death from a newly spreading peritonitis.

The anesthesia employed is very important in the surgical relief of the acute abdomen. No one method is to be used in all cases but as yet nothing has surpassed the good old ether anesthetic. There are many frills attendant to the use of ether but it is still the most valuable single method. In gallbladder cases and high abdominal work where complete relaxation is so important to the surgeon, the spinal anesthetic is preferable. Local anesthesia is time consuming and as many of the diseases under discussion in this paper are of an exploratory nature, one can never be sure that enough area will be blocked.

### DISCUSSION

RUSSELL L. MALCOLM, M.D. (Richmond): Dr. Luckett has very admirably covered a rather large field in his paper. There is one phase which he has adequately covered but which I would like to emphasize because of its increasing importance to the surgeon of today, namely, water balance. My remarks are largely based on the work done at the University of Michigan Hospital under the direction of Dr. Frederick Collier.

The surgeon frequently is called upon to replace four body essentials, namely, blood, water, glucose, and salt. The indications for blood are well understood and the treatment, of course, is transfusion.

It has been shown experimentally that a dehydrated patient has lost fluid equivalent to about 6% of his body weight. We know that 2,000 cc.

of fluid daily are lost by vaporization from the lungs and skin and that to protect the kidney it should put out about 1,500 cc. daily. In computing the amount of fluid necessary for the severely dehydrated patient, all of the above amounts should be added together.

In replacing this fluid it must be borne in mind that overloading with normal saline may produce an edema. Consequently after the necessary amount of chlorides has been given, it is best to use 5% glucose in distilled water.

In regard to glucose, the third essential we have listed, it is not necessary to add to what Dr. Luckett has said.

Recently with the introduction of gastro-duodenal drainage and more extensive surgery on the gastro-intestinal tract, we are becoming more aware of the necessity of dealing with plasma chlorides in a sick surgical patient. Chlorides may be lost from the body by the urine, gastro-intestinal tract, skin, and miscellaneous sources such as ascites and hydro-thorax. Of all of these, the second is the most important and includes vomitus, gastro-duodenal drainage, hepatic bile, fistulae, and diarrheal stools.

The symptoms of hypo-chloremia include lassitude, weakness, tiredness, drowsiness, dulling of the sense of taste, anorexia, and nausea. With more marked depletion, there is a dulling of the mentality and muscle cramps.

The signs are those of dehydration and alkalosis with a low pulse pressure and low plasma chlorides.

Clinically we are confronted with two problems. First, the problem to maintain the normal sodium chloride concentration in patients losing measurable amounts of sodium chloride while under observation. The solution to this problem is to replace the measurable secretion losses with equal volumes of physiological saline or Ringer's solution. In other words, if a patient should lose 500 cc. by vomiting in one day, the following day he will need an equal volume of physiological saline, or 500 cc.

The second problem with which we have to deal is to restore the sodium chloride to patients whose plasma chlorides are below normal when they are first seen. This, of course, is commonly true in the very sick individual. By the time you are first called to see the patient, he is already dehydrated and probably has been vomiting or has had severe diarrhea with a loss of a great deal of chlorides.

We need two facts in order to arrive at a conclusion as to how much chloride to give him. In the first place, we must know the total sodium chloride content of the body. We must have a simple index of the degree of sodium chloride depletion which he exhibits. From these two we can calculate the amount of chloride needed.

There has been a rather complicated mathematical formula devised for experimental use and it



has been checked with a clinical formula which I will show you.

We assume that the normal plasma chlorides are between 560 and 630 milligrams per 100 cc. For each 100 milligrams per 100 cc. that the plasma chlorides need to be raised to normal, or 560, the patient should be given  $\frac{1}{2}$  gram of salt per kilogram of body weight.

An example would be a 60 kilogram patient, with plasma chlorides of 410 per 100 cc., would be deficient 150 milligrams which would be one and one-half times our  $\frac{1}{2}$  gram of salt times his body weight, or 60, and he would need 45 grams of salt in order to have his chlorides on a normal level. That, of course, would be about six liters of physiological saline.

## WHAT IS NURSING?\*

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Philosophy has been defined as concern about the nature and the significance of truth. After all, should we not be, all of us, engaged in the search after truth; and should we not be willing, if truth be found, to attempt, at least, to pattern our lives in keeping with its suggestions? Most of us have emerged from that school in which the curriculum was prescribed by educational authorities into the larger school of life. In this school we have become our own teachers and our own students. In this great post-graduate university, in which the schooling lasts while life lasts, each of us as student recites daily the lesson to one's self as teacher. Each of us formulates the examination questions; each of us makes answer to those questions; each of us grades the answers to our own questions. We are constantly in school. In that capacity we must be dealing in some fashion with truth, with ourselves, with our fellow-mortal, with God. I wonder how intelligently, how frankly, how courageously, how enthusiastically we carry on our student activities all the days of our lives? I think the word *student* means fundamentally one who has zeal and enthusiasm for what one is doing. In that sense, how many of us are students?

Were I at the beginning of life, and could I have for the asking life's greatest gift, I should beg of the gods that they give me the gift of wonder. With that quality as a companion, life would be a continuing adventure. I should define wonder in the sense in which I am thinking of it as something more than mere curiosity. I think of wonder as tinged with awe, and as meaning an insistent but agreeable urge to know why; to be politely unwilling, perhaps unable, to be satisfied with another's statement of the reasons why things are as they are. Wonder, rather than mere doubt, should take one to the end of the rainbow so that one might there feast one's own eyes on the golden glow. Wonder should cause one to step untiringly across fields, up and down hills, and across valleys, until one might come finally to that place where the blue sky comes down and touches the earth.

Wonder, the restless, curious, eager, insatiable, somewhat child-like wonder of the enquiring mind, has made human history wonderful. The quality of wonder gives life its romantic touch, and robs it of drabness and monotony. Wonder caused the Shepherd to stand in awe on the wooded slope and to formulate the twenty-third psalm as he looked in admiration across the green valley; and to marvel as he gazed on a cloudless night into a star-bedecked sky—the heavens declare the glory of God. Wonder enticed the Chosen People out of Egypt, and led them by faith through desert and wilderness and across the sea into the Promised Land. Wonder pointed the first telescope into the skies; wonder brought to light the inhabitants of the microscopic world; wonder enabled William Harvey to discover the circulation of the blood, and Edward Jenner to observe the immunizing effect of cowpox against smallpox. The increasing wonder of myriad men and women has given us our literature and science and mechanisms and our unique democratic form of government.

The wonderer may become also a wanderer; he is always an adventurer. One may remain at home, and yet engage in incessant adventure, for the term adventure does not necessarily imply physical activity, but it always implies mental restlessness. Thomas Jefferson was in that sense an adventurer every day of his long life. He wondered and wondered and wondered—the most alert and restless intellect our country has ever known. Benjamin Franklin's mind was heavier, but almost equally as curious, though not so boundless in its roamings as Jefferson's. When we have become conscious of time we are already bored; when we think of the day's work as monotonous we have already become slaves to necessity. We should pray for the illusion that would enable us to feel that we are stepping newborn into a new world each morning. Sometimes we become so enmeshed in the mechanistics of our daily duties that we lose sight of the spiritual aspects of our own lives. We are living in a materialistic age, but that is all the more reason why we should try to keep alive the spark of spirit that must glow, however dimly, in each of us.

We live in a world largely filled with material-

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istic symbols. We use symbols so constantly that we become unaware that symbols are mere substitutes. A word is a symbol. Money is a symbol. A word stands for something else, but it cannot fully represent the thing for which it stands. A word has ancestry, birth, growth, development, and often the meaning of a word becomes so changed that its original meaning is lost. Nursing and nutrition have the same verbal ancestry. Once upon a time, I doubt not, both words meant the same thing. To speak of the mother as nursing her child at her breasts is to make proper use of the word nursing in its fundamental sense. The child must be nourished by food if the child is to survive and to grow. The developing and the fully developed human body are worthy of consideration and protection. We live in our physical bodies, but our bodies are not ourselves.

We human beings are spirits, however cabined and confined we may be in our tabernacles of clay. The smallest and the least significant portion of the individual whom you nurse is physical structure. The body of your patient must be fed, that is true; and bathed, and sometimes shaved, and have other tonsorial attention; and be massaged, and bedded down, and exercised, and induced ever and anon to sleep. But the physical needs of your patient are relatively easily attended to. After all, the physical body, as a mechanism for doing labor, is becoming less and less important. But our bodies are constantly elaborating energy, and that energy must find outlets. About that I shall speak later. Our pioneer ancestors had to be able to exhibit muscular power. With their own strength they cleared forests, cultivated fields, made roads, built homes, and fabricated their own crude tools and utensils. But man now utilizes the forces of nature in doing work that was formerly performed by his own physical strength. Man has become more and more a director of energy. His own physical strength is of lessening importance; his own wit is of increasing importance.

Sound physical health is desirable because we live in our physical bodies. Our bodies are our temporary homes. Our bodies are our most intimate companions. Our spirits are affected by the health of our bodies. And largely by means of voluntary and involuntary changes in our bodies we manifest our instincts, feelings, and ideas. Conduct is the mental state made obvious through bodily behaviour. There is some intimate relationship betwixt thinking and bodily movement. It may be true that every idea results in movement, although the movement may be infinitesimally small, and it may be hidden in the depths of the body. The clash and the clamour of the noises to which we are being constantly subjected, often without being conscious of it, may be wearing out our bodies, and causing various nervous disorders and too early death, through the minute responses to the sounds by the various portions of our bodies. An unusually loud sound, if unexpected, is apt to cause one to jump; a noise less loud may cause

commotions throughout the body that do not reveal themselves to the outside world. In order that we may be acutely attentive we live in a state of constant tension. We make use of tension even in trying to be indifferent to certain stimuli.

May we not, even at the risk of being somewhat fatigued, give some thought to the condition of our imponderables? our instincts? our emotions? our intelligence, such as it may be? For the mighty things, the immortal things, the divine things, are invisible, imponderable, impalpable, unseen by human eyes and unfelt by human hands. I think of the personality as embracing all the immaterial qualities of the individual, and our personalities are as distinctive as our physical bodies. Our friends, and our enemies, too, identify us by such attributes. How we feel and how we think and how we look out upon life are even more important than the state of our physical bodies. And in your nursing activities you know how much more difficult it may be to minister acceptably to the emotional structure of your patient than to your patient's body.

Fear, rather than disease, calls the doctor and the nurse to the bedside. Fear is a mighty, perhaps the mightiest, emotion. We live in a state of chronic fear, made acute in many circumstances. It is bad enough to be constantly afraid; but our discomfort is aggravated by the necessity of trying to conceal the fear. But it must be concealed, for to exhibit fear is to confess cowardice, and no brave man or woman can be a coward. Fear represents a form of energy, and energy, you know, insists upon being at work, and it resents repression. In that way repressed fear does harm. Its repression may lead to the development of various forms of nervous troubles. Many conditions referred to as nervousness are only poorly concealed forms of fear. I doubt not that long continued latent fear may cause organic disease, especially of the nervous system, of the digestive apparatus and of the circulatory mechanism. I think we should remember that it is not the fear that does harm, but the unnatural way in which we deal with our fears. Animals make no apologies for exhibiting fear. They are not answerable to their neighbors nor to public opinion for their emotional exhibitions. But we poor mortals are afraid to confess that we are ever afraid!

Repression—keeping the lid on—is one of the necessities of civilization, but it requires constant effort, and it may cause unending discomfort. The confessional of certain religions offers relief from such tension, and is of therapeutic, as well as religious, value. We doctors and you nurses often have to receive confessions. Psychoanalysis is based almost wholly upon the belief that much conduct arises out of the subconscious—that spacious mental basement into which we repress such an enormous assortment of personal experiences. What our life is depends largely upon how we handle the content of that basement.

Instincts are influential factors in human conduct, although we prefer to think of our behaviour as



intellectual, and that of the lower animals as instinctive. But we are richly endowed with instincts. That fact makes living both more easy and more difficult for us. Eating is instinctive; and sleeping; and taking steps to avoid danger; and mating, and begetting offspring. Most animal activity, including man's, has only two large purposes in view—self-protection and self-perpetuation. Mankind is engaged chiefly in efforts to gratify certain instinctive hungers. The primary urge is to sustain the body through the use of food and to protect it from the elements and from enemies. But these requirements may be made most elaborate—in food, in clothing, in housing, and in protection, even through the use of great armies and navies. Man may doubt the orthodox belief in immortality of the soul and the resurrection and the permanent survival of the individual physical body. But no intelligent person doubts the possibility of the survival of the individual through the immortality of protoplasm in descendants.

Instincts are rather candidly honest attributes. I suppose they may be defined somewhat too simply as urges to act in a rather definite manner. Instincts are interested, so far as I know, only in the gratification of their own yearnings. They are without respect and shame and they care nothing at all for man's opinion. I think they know nothing about morality and immorality and honesty and dishonesty. Many instincts serve a useful purpose, but they have a rather hard time of it in civilized society. Everybody would enjoy yielding to instinctive urges, but if we are to be thought of as being civilized we must join the chorus in denunciation of mere instinctive behaviour. We must decide to be either wholly instinctive and therefore natural and therefore honest in behavior, or else conventional and civilized and therefore unnatural and therefore dishonest in conduct.

You understand, of course, that a cat and dog fight is on from birth to death in every mortal betwixt instinctive urges on the one hand and the demands of civilization on the other. If the repressing mechanism is in good order and the individual is in good health and in good fortune, it may be possible for the instinctive demands to be kept under the heel and for the individual to live civilized. But if the instinctive drive be aggravated by temptation or the repressive forces be weakened by illness or by misfortune, then there may be a personal catastrophe.

I have spoken of fear. Man's chief fear is, I surmise, that in the constant conflict betwixt instinct on the one hand and the demands of civilization on the other, he may be stripped naked and made to stand forth undraped before all mankind as he really is. We are at best curiously contradictory creatures. In order that we may be the better enabled to express ourselves we go to school and we read and take special courses in music and in painting and in writing, and in many other branches, all for purposes of self expression, and yet we are as busy as bees all the time in repressing

and in keeping our real inner selves hidden, not only from the world, but even from ourselves. We are constantly in search of our own souls, yet we are so cowardly and so little interested in naked truth that we would not reveal ourselves to ourselves for a king's ransom.

And so life is a conflict, not so much betwixt the individual and the world around him, as betwixt contending and contra forces within him. The world's major battles have not been and will not be fought on land and on sea and in the air and beneath the depths. They will be fought where they have always been fought—within man's own calvarium and within man's own bosom. The idea is old. In certain religions it is called original sin. Another name for some of the instinctive urges is the devil. But man is an energy-system. Energy insists upon being busy. So far as I know energy has no ethical conceptions. It is interested in doing, rather than in results. Some of the forces liberated in man go in one direction; some go in the opposite direction. Conflicts occur. Sometimes such concealed conflicts cause what we speak of as disease—nervous disorders, mental disorders, physical disturbances, headaches and other pains, indigestion, cardiac dysfunctions, respiratory concern, and general unhappiness. The individual may not even surmise that the situation may be the result of an inner and a concealed conflict. Tedious and patient effort may be necessary to uncover the cause of the predicament. But such a cause may be as real as a hidden nest of germs, and even more hurtful.

Do you not understand what huge monsters you nurse, whether your patient be a little child, a frail but cultured woman, or a man used to command armies? Your patient's immaterial attributes are thousands of times larger than his physical body, and these qualities are generally much more in need of your understanding and soothing and sustaining influences than his body is in need of your ministrations. For where sickness is, hope is lessening and fear is increasing. The household may be in the grip of fear.

Your movements will be observed, your face studied, you will be questioned: watch-woman, tell us of the night. Let cheerfulness and optimism be your companions, and fear and apprehension strangers to you. No other mortal is permitted to occupy in the hospital and in the home a place so sacred as that of the nurse. All the closets, for china and for skeletons, are opened to her. The nurse is permitted, yea, often invited, to look deep into the soul of her patient. She should, she will, remember that we are made of dust, neither devils nor angels, and that with such resources as we have we are trying to adjust ourselves to constant changes in a turbulent world. In dealing with our fellow-creatures I feel that you nurses and we doctors should think as little as possible in terms of right and wrong, moral and immoral, and that we should try to develop an understanding of what the symptoms say, for whatever one does or does

not constitutes symptomatic behavior, and all behavior has significance.

Where there is professional understanding there is neither censure nor intolerance, but only hope and charity. Jesus said: And ye shall know the truth, and the truth shall make you free. From

what? From the bonds of ignorance and of fear, for fear is generally one of the manifestations of ignorance; and ignorance must be the principal cause of all bigotry and intolerance and cruelty and perhaps also of most wrong and of most unhappiness.

## OBSERVATION AND EXPERIMENT. EXAMINATION AND TEST

### THEIR DEFINITION AND ROLE IN MEDICINE

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"Observation is the act of apprehending things and events, their attributes and their concrete relationships. From the point of view of scientific interest two types of observation may be distinguished, namely: (1) The *bare observation* of phenomena under conditions which are beyond the control of the investigator. What distinguishes experiment from bare observation is control over what is observed, not the use of scientific apparatus, nor the amount of trouble taken. The mere use of telescopes or microscopes, even the selection of especially suitable times and places of observation, does not constitute an experiment, if there is not control over the phenomenon observed. On the other hand, where there is such control, there is experiment, even if next to no apparatus be used, and the amount of trouble involved be negligible." Such is the differentiation between observation and experiment generally given. At first sight it seems clear cut enough. But when one tries to carry it into practice, difficulties are soon apparent. What constitutes *control over what is observed*? Is this the same as the *control of conditions under which phenomena are observed*?

When Hippocrates attended the wife of Philinus after childbirth, he noted her chill, her fever, her pain, her thirst, her insomnia, her delirium, her spasms, her stupor, her death. He felt the coldness of her extremities, and the heat of her abdomen; he saw her lochia cease, her scanty stools give way to a bilious flux, and her thin colorless urine become thick and white like that of cattle. Hippocrates *observed*.

Galen, however, when involved in argument with the Asclepiadeans in regard to the function of the kidneys, proceeded in a different fashion. Resorting to vivisection, he ligated the ureters and demonstrated the resulting cessation of urination, the distention of the obstructed ducts, and the emptiness of the bladder. On release of the ligatures he showed the bladder becoming filled with urine. Then, before allowing the animal to urinate, he tied the penis and squeezed the bladder; nothing went back through the ureters to the kidney. Releasing the penal ligature he permitted the animal to urinate, and then religatured one of the ureters

and left the other to discharge into the bladder. After a time he showed the ligatured ureter full and distended on the kidney side, while the other was flaccid and had filled the bladder with urine. Dividing the full ureter he demonstrated the urine spurting out of it. Finally, cutting the remaining ureter, he bandaged the abdomen and waited. On reopening the wound he showed the bladder empty and the peritoneum full of urine as if from a dropsy. Galen *experimented*.

The observation by the physician at the bedside, the experimentation of the vivisectionist, the passive watching of the unrolling of events, the active forcing of facts to light: these have been an ancient heritage.

Passivity; activity. Are these characteristic of observation and experimentation respectively? They often have been so considered. Activity suggests intervention and participation, either manual or mental. If manual, control of the conditions under which the study of phenomena is made in many instances can be secured. But does this constitute experiment? Claude Bernard (who in his great work *Introduction à l'étude de la médecine expérimentale* has made a most searching analysis of the concepts *observation* and *experiment*), explicitly answers this question. Suppose a physiologist wishes to study digestion in the stomach of the living animal. By operative intervention he makes a gastric fistula and thus has controlled the conditions of his observation. He has intervened and brought phenomena to his eyes which naturally would be hidden. But if this activity mean experiment, what shall we say of the studies of Beaumont through the fistula of Alexis St. Martin? When Beaumont viewed the inside of the young Canadian's stomach and described the phenomena seen, was he not merely observing? Experiment must connote something further.

Further, from the standpoint of mental participation, is any observation worthy of the name completely passive? Logicians who regard "observation as a passive reception of impressions, while experiment is a symptom of mental activity" must assume that some mental processes are strictly, and not merely relatively, passive. This assump-



tion is unsound. Observation as employed in medicine, to be of any use, must be both attentive and purposeful, and connotes mental activity.

Thus the differences between observation and experiment are not as great as at first appears. Control of the conditions under which observation is made, and activity either manual or mental do not serve to distinguish them. We have left then the idea of control of the phenomena themselves.

Most of the obscurity in the meaning of these terms according to Claude Bernard results from the confounding of the *art of investigation* which searches and determines *facts* with the *art of reasoning* which puts facts to use logically in the quest of truth. For it is necessary in investigation to have activity at the same time both of the senses and of the mind.

From the point of view of the art of inquiry observation is the investigation of a natural phenomenon, and experiment the investigation of a phenomenon modified by the investigator. From the point of view of the art of reasoning, observation is the determination pure and simple of a fact, and experiment the control of an idea by a fact. Careful study of the procedure of Galen in his experimentation on the function of the kidneys will bring this out. Hence the concept of control of the phenomena studied is inherent in the idea of experiment; but control is a poor term, modification being much better.

Claude Bernard distinguishes, therefore, three phases in experimental knowledge: the observation made, the comparison established, and the judgment rendered. Experimental method is nothing other than the passing of judgment on the facts which surround us by aid of a criterium which is nothing more than another fact disposed in such a manner as to control judgment and furnish experience. The mind in itself has only the sentiment of a necessary relation between things, and cannot recognize the form of this relation except by experimentation.

Observation and experimentation are the methods of investigation in the sciences. Their difference is not great, experiment at bottom being merely a special form of observation; but this form seems worth retaining. It serves to designate certain of the fundamental medical disciplines as observational, others as experimental; e. g., anatomy is observational, physiology experimental. But in all experimentation observation plays a part. Practicing physicians are concerned chiefly, however, not with the fundamental medical sciences, but with the medical discipline, diagnosis. It can be shown that diagnosis has certain definite characteristics which distinguish it from a pure field of knowledge or a science. In order to secure an excellent example of experimentation, I was forced to go outside the field of practical medicine and cite some work from Galen in the realm of physiology. Diagnosis is by nature observational and not experimental. Yet the observation employed

in diagnosis is not all the same, and there is need to separate it into its constituent types.

Experiment is the instrument par excellence of research. It is an operation undertaken to discover some unknown principle or effect. Its essential characteristic is its ability to give instruction in regard to the interrelationship of things, to give light on the true nature of phenomena. In the realm of the living, significant knowledge can be secured only from the study of function and its alterations. As Claude Bernard truly states, we could never become aware of the use of such a simple thing as a human articulation by mere contemplation of the dead body, if we had never before had experience of a moving hinge, etc; nor of the significance of muscles or glands if we had never seen limbs move or organs secrete. It is our knowledge of physiology, knowledge gained from the living, projected back into dead bodies that clarifies and makes significant the fields of descriptive anatomy and pathology. And experiment is the method of tracing causal connections in the living. Hence in the field of delving into the unknown, experiment has both significance and employment; it is a method of medical research.

It is true that in investigating individual cases of disease the subject of study is an unknown and properly an object of research. But clinical medicine is a practical affair and diagnosis owes its existence to the fact that it is our most valuable means as basis of action for getting things done. Individual cases are classified and labelled by the recognizing of similarities and the neglecting of differences so that the mere name given them evokes all that has been found out and proved in regard to them throughout the past; and thus at one fell stroke is gained a tremendous vantage for therapeutic approach. This is investigation for purposes of classification; not true research.

If we consider diagnosis as not merely the placing of an individual in some accepted system of classification, but mean by it the true understanding of the case taken by itself, then we must seek the causal connections of things. In such diagnosis we recognize the variability as well as the similarity of man, the individual characteristics as well as the common. Diagnosis becomes etiologic, and physiologic. So considered there is more play for experiment, but even here our causal elucidation of phenomena is not conditioned by things found out in this individual case; they are explanations of facts and conditions granted us through our knowledge of medicine and the sciences, furnished by previous research.

Experiment in medicine is of three chief types: experiment on animals, experiment in vitro, and clinical experiment. The first is chiefly employed in the physiologic sciences and in immunology; the second is the method of chemistry and of the chemical investigation of vital phenomena; the third is that of medicine proper. Clinical experimentation is prosecuted at present chiefly in the field of therapeutics. Diagnostic procedures may be

developed by experimentation during the period of their elaboration for clinical purposes; but once their adoption has become general, their technique standardized, and their sphere of usefulness delimited, it were better to drop the designation "experiment" in regard to them. The terms examination and test are much more appropriate to diagnosis than are those of observation and experiment. It is true that experiment in common usage is applied not only to the effort at discovery of what is as yet unknown but also to the verification or illustration of what already has been ascertained. But verification is only a part of the original research in the establishment of the unknown, while illustration is used for teaching purposes, not as a prerequisite to action as in diagnosis.

The term *test* represents in a way in diagnosis that which experiment does in medical research. Test comes from the Latin *testum*, an earthen vessel, a cupel, a crucible. It is defined as meaning an examination which gives subjection to conditions that show the real character of a person or thing in relation to some particular quality. The term test is one of great utility in diagnosis, and though its use has been protested by some laboratorians, there is no ill in the word when used in its proper connotation. It means something quite definite for which no other term will suffice and, though too extensively and at times erroneously used in relation to laboratory procedures, it is not sufficiently employed in clinical investigation, or at least is not applied to procedures which are in reality tests. Test implies that something is being put to the proof. The criterion of the test is that it applies to phenomena which to be observed must be elicited, phenomena which do not present themselves for immediate perception. They require *action* or *stimulus* to bring about their appearance. In the case of substances capable of chemical or immunologic investigation "reaction" is spoken of; in that of living functional systems the designation "stimulus—response" is used.

Test is like experiment in that the phenomena observed are themselves under control, the conditions of their appearance or non-appearance, as the case may be, being brought about at will. But test, like observation, is the determination pure and simple of a fact, even though this fact has to be elicited, and not the control of an idea by a fact. The fact in the case of the test is sought for as a *sign* of health or disease, of the normal or the pathologic, and of the degree of morbid change. In test, also, the observation is that of a naturally occurring phenomenon, whether normal or pathologic, and not of a phenomenon modified by the investigator; by this I mean that the physiologic function to be tested already exists in latent form to be aroused by the proper stimulus and the part of the tester is to give this stimulus, and not to modify the resulting response; that the chemical or immunologic substance is already naturally existing and that the test is merely a procedure for

bringing about its recognition. Further, observation in the case of tests is not made for the purpose of comparison and combining with other similar observations in order to build up general principles in medical science, but these principles being accepted are applied in the given case for the purpose of ascertaining the presence or absence, or the degree or amount, of a certain function or substance, etc.; that is, experiment represents science, test diagnosis; test is of the same nature as diagnosis itself and is characteristic of it. Furthermore tests represent standardized procedures. They have their definite and *set* techniques, at least for the individual diagnostician if not for diagnosis as a whole. The procedure itself is not varied as it is in experiment to see whether when working with the same subject the results are different; but the procedure is held unvaried to determine whether a certain one or another of the known possible results under the conditions of the test will follow. Test does not investigate the causal interrelationship of phenomena, but merely the existence or nonexistence of things or potential reactions in cases where such existence cannot be determined without active intervention on the part of the investigator.

*Examination* is a much broader term than test; it is the general term for studying anything carefully to discover its real character, condition, or status. Hence it has been applied, and appropriately so, to investigation in general as applied in the field of diagnosis. Examination may be limited or extensive as purpose may require. Whereas test applies only to one particular substance or phenomenon looked for, examination may also appropriately be applied to the investigation of multiple attributes. One may examine the urine or feces and in so doing search for or determine many things, but he tests the urine for albumin or sugar, the feces for blood, etc. Examination like test is distinctly of the nature of diagnosis itself; both are the appropriate terms for use in diagnostic investigation, as observation and experiment are in science, but they are in reality merely types of observation. Let us study then briefly the application of observation in diagnosis in the effort to develop a classificatory scheme to bring order into this field which has been so confused.

Direct perception by the employment of the unaided sense organs as used in diagnosis constitutes unquestionably simple and pure observation. The diagnostician, though active mentally as in all investigation, is passive so far as the phenomena studied are concerned. He does not intervene either in the conditions of his observation or in the phenomena observed. Here lies the whole field of inspection in physical diagnosis, the inspection of gross specimens in the laboratory, direct auscultation with the ear, and palpation. I shall call this type of observation *simple observation*. It has much greater employment in clinical than in laboratory diagnosis, and is distinguished from mere casual observation, the observation of the layman



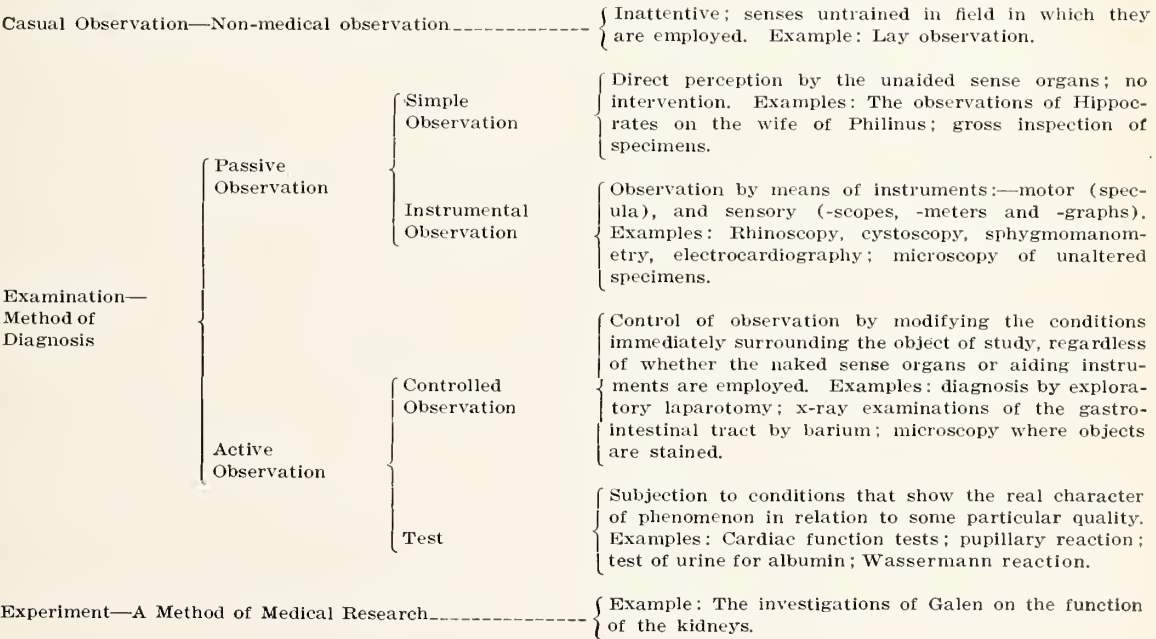
and of everyday life, largely by the degree of attention directed to the object observed and the vocational perceptive education of the observer himself.

In medicine as in all modern technical fields the naked senses have been extended greatly in their power by the use of instruments. These aids may be motor (specula) or sensory (—scopes, —meters, or —graphs), but in all instances it is observation that one is practicing when he uses them. Their mere employment is sufficient to warrant the separation of such observation from the simple non-instrumental type. Examples of this kind of observation are: (1) the inspection of the turbinates, the uterine cervix, or the rectal mucosa through specula; (2) the viewing of the retina with the ophthalmoscope, the ureteral orifices with the cystoscope, the larynx with the laryngoscope, the heart with the fluoroscope, natural unstained specimens with the microscope, etc.; (3) the determination of the degree of temperature with the thermometer, of the amount of bilirubin in the blood with the colorimeter, etc; and (4) the tracing of the pulse with the sphygmograph, the roentgenography of bones, etc. In all these instances, though instruments are used, there is no intervention actively on the part of the investigator to control either the conditions immediately surrounding the phenomenon, or the phenomenon itself. The observer remains passive in so far as the subject studied is concerned, as he does in simple observation. The intervention, if such it be called, is merely in the interests of the senses, either in the extending of their power, or the conversion of some attribute of the object studied into such form as to translate it from the field of the non-observable to that of the observable. The control is that of the instrument itself as a means of observation; just

as in simple observation movements of the examiners' body or bodily parts, e.g., eye or palpating hand, permit placing of the sense organ in proper position for perception. This type of observation I shall call *instrumental observation*.

There are cases of observation, however, which do not fit into either of the above groups, and which are not tests. These are instances in which observation is permitted or facilitated by the investigator assuming an active role in modifying the conditions immediately surrounding the object of study, whether instruments or bare senses are used. This is well illustrated in x-ray examinations where contrast media are employed, such as the introduction of barium into stomach, bowel, and sinus tract, sodium bromide into the kidney pelvis, air into the ventricles of the brain, and lipiodol into Fallopian tubes and bronchi. In diagnostic exploratory laparotomy one is practicing the type of controlled observation mentioned by Claude Bernard in his example of the gastric fistula. In the laboratory this form of observation is represented by the field of microscopy when specimens are stained, and in physical diagnosis by such expedients as having the patient hold his breath while listening to the heart, breathing deeply through open mouth while the lungs are being auscultated, etc. Strictly in all these instances not only are the conditions of observation controlled and modified, the objects themselves are altered to some extent; the introduction of barium modifies the functioning of the gastro-intestinal tract, staining changes the make-up of tissue, holding the breath alters the heart rhythm, etc., but these effects are minimal and may be neglected so far as diagnostic purposes are concerned. This method of observation I shall call *controlled observation*.

Finally, there is the *test* which already has been



discussed. Its employment is extensive. In clinical diagnosis there are not only mental tests, tests of cardiac function, etc., which are labelled tests, but also many things not usually so spoken of, such as the whole gamut of reflexes, pupillary, patellar, etc., which truly belong in this category. In inspection, auscultation and palpation in physical diagnosis the examination is sensory and passive, but in percussion this is not solely the case. Here there is active motor intervention; the sounds are not merely there to be heard as in the case of auscultation,—they have to be elicited. One tests for dullness, for tympany, etc. In the laboratory tests are used so extensively that the term has come for many to connote laboratory procedure; this is unfortunate as well as untrue, for the prevalent misconceptions concerning tests and their functions are responsible for the odium with which the term is held by clinicians and the attempted avoidance of it by certain laboratorians. The whole fields of diagnostic medical chemistry and serology are concerned with tests—tests of kidney and liver function, of gastric secretory activity; tests for sugar and albumin in urine, for the amount of urea and crea-

tinine in blood; Wassermann and Kahn tests, etc.

The possibilities for advance in the field of diagnostic observation, as distinguished from individual education of the senses, etc., lie in the development of tests, in the perfection of instruments, in the extension of the methods of control of the conditions of observation, as I have here outlined them. From simple observation we can hope for little more than we now have.

In concluding I offer my classification in schematic form. *Examination* is chosen as the generic term representing diagnostic investigation in general and is distinguished from *casual observation* which is of no diagnostic use, and *experiment* which is an instrument of medical research. Examination represents observation both *passive* and *active* in type, each connoting active mental participation, and control of the observer himself and his sensory and motor aids, but the one without active interference with the objects or the conditions of observation, the other with such intervention. Passive observation I have divided into *simple* and *instrumental observation*; active into *controlled observation* and *test*.

## ABSTRACTS

### HOW TO DEVELOP NORMAL EATING HABITS AMONG CHILDREN

Methods for developing and maintaining normal eating habits among children are outlined by Ruth Peck McLeod, Knoxville, Tenn., in the February issue of *Hygeia, The Health Magazine*.

"Regularity of habits is one of the therapeutic measures necessary in correcting the poor appetite," the author says. "The child should have plenty of sleep in a bedroom where there is plenty of fresh air, should arise in time to have a warm breakfast and should have his three regular meals on time, whether or not the rest of the family are ready. Extra lunches should consist only of fresh fruits and milk, as these are the only foods that can be served safely without destroying the appetite."

Unpleasant discussions and criticisms of the child's manners often kill the desire for food. Parents' prejudices against certain foods should not be discussed before the child, nor should his failure to eat be made the topic of conversation.

"If the nervous child can be persuaded to lie down or relax or to read for at least thirty minutes before he eats, his stomach will be in a much better condition to handle his meal," says the author.

Too much indoor life in overheated houses with too little humidity may be responsible for poor appetite, she continues.

"If regular habits and sunshine do not produce a good appetite, then there must be an underlying cause which should be investigated."

### FIRST SYMPTOMS OF MALIGNANT TUMORS OF KIDNEYS IN CHILDREN

The first symptom in children of a malignant tumor of the kidney is usually painless enlargement of the abdomen or a large mass found in the upper part of the abdomen, H. Dabney Kerr, M.D., Iowa City, Iowa, points out in *The Journal of the American Medical Association* for Feb. 4. This was true in twelve of the fourteen cases that he encountered.

Other symptoms may be present, but they usually

accompany the abdominal enlargement or the mass. These additional symptoms are pain, nausea, vomiting, constipation, diarrhea or general weakness and general discomfort. Therefore, on the finding of a mass in the upper part of the abdomen, usually painless, in a child 6 years old or younger, a presumptive diagnosis of a Wilms tumor of the kidney can be made. Of course, different types of tumors and growths of other organs must be excluded.

The best treatment for the condition is a full course of x-ray treatment followed by operation. Operation should not be delayed beyond the time that the tumor decreases in size. It is worth while to irradiate secondary spreading tumors and local recurrences intensively. Two of the author's patients are still alive and without evidence of disease fifty-nine and fifty-two months after admission to the hospital.

### DEAD FAT TISSUE MISTAKEN FOR CANCER

Dead fat tissue in the breast is definitely significant as it may be mistaken for cancerous tissue, says an editorial in *The Journal of the A.M.A.* for Feb. 18.

Two cases are cited in which a breast, believed to be cancerous, was removed mistakenly.

"Injury and infection are factors in causing fat tissues to die," the editorial says. "But the frequency of injury and infection to which the tissues and fat are exposed and the rarity of the lesion suggest that there must be still another factor. It has been suggested but not proved that pancreatic cells may be transported to such areas, remain latent and be activated by injury."

"In about 40 per cent of the forty-five cases reported there was a history of rather severe injury to the breast and in most of them the tumor developed where the injury was inflicted. There was no discharge from the nipple. The history of duration of the tumor varied from ten days to two years. The tumor appears as a firm painless nodule which gradually and at times rapidly increases in size. In more than 50 per cent there were adhesions to the skin and occasionally the typical 'orange skin' appearance which is so characteristic of cancer of the breast."



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JUNE, 1939

Editorials

CRIPPLED CHILDREN

There is a place for the cripple! He is an object for pity only so long as he remains at the side of the road. The Eskimo, an Asiatic who migrated through, battled, and thrived in a climatic hazard which still stands as a challenge to the Nordic, holds a high rating on the anthropological scale. He does so because along with other racial characteristics he cared for his children and the aged members of his family. We have added the cripple to this protectorate. There are available facilities for the care of the crippled child which are far from being exhausted.

There is something to be done for the cripple! Braces, shoes, and even crutches become worn and useless or even out-of-date. The best that corrective surgery could provide yesterday may be improved by accepted orthopedic procedures of today. The possibilities of last year are attainment in the present one. Within the past few years, methods of correction of spinal deformities, reconstruction of joints, lengthening or shortening legs, and reconstructive surgery on the paralytic have advanced to an unusual degree.

There is a future for the cripple! Special schools for the child, training centers for the youth, and occupational rehabilitation for the adult are readily available. If we, the physicians of Indiana, are to remain in the van of all the agencies serving the cripple, we must continue to be alert to the needs of this unfortunate group.

COMMENCEMENT—A BEGINNING

During the month of June several thousand young men and women marched in formal procession to receive from the proper authorities that coveted bit of parchment to advise those who read it that the owner has become a full-fledged Doctor of Medicine after many years of study. Practically all of this group will enter American hospitals, there to spend a year or more in the application of the things that they have been taught, and to observe at first hand the illnesses that are prone to afflict mankind. They have assiduously applied themselves to the study task, they have passed the State Board examinations, they hold a diploma and are duly registered and licensed as physicians. Now what may they expect from the public and from the medical profession? What have they a right to expect?

What they may expect from the public is a question. In former years, the legally licensed physician had the right to expect from his immediate public a sense of respect that is commonly accorded individuals possessed of a more than usual education. We say in *former* years, because of the fact that at the present moment it would seem a question as to just where the profession stands. What may he expect of his elders in the profession? Too often it would seem that the interne is regarded as a menial, quite like the poor plebe in military school and he is expected to "take it" on any and all occasions. This is not always the case, however. If he is sincere in his endeavor to learn, the interne often is regarded as a very worthwhile aid to the members of the visiting staff of the hospital. However, there are many things that may be done for these young folk, little attentions that no doubt will materially influence their future career. Interne teaching, long neglected, has now become a part of the routine in all first class hospitals. No formal classes are held, and no didactic teaching is carried out, but instruction is furthered in the informal discussions of cases with these young people. This matter has been discussed with many physicians who have served as internes over the country, and from their answers we have arrived at the conclusion that the interne year has much to do with the future career of the individual.

One point that should not be overlooked is the matter of medical organization. We believe that every medical society in counties in which one or more hospitals are located should provide for interne county medical society membership. The annual fee for this should be very little—preferably nothing. The internes should be encouraged to attend meetings and should be asked to present a program, or a part of one. With the ever-increasing changes in medicine, many an oldster in the county medical society can and will learn much from the internes. A few years ago a prominent member of one of our medical societies, a man who had graduated in medicine before the turn of the century, decided to have a complete "blood picture" of a

patient. When he received the laboratory report, he looked it over carefully, then remarked, "Now, I'll have to get one of the internes to tell me what it means!"

Let's be a little more considerate of our internes. Let's do a bit of bedside teaching as we go along and, occasionally, let's listen to the interne a bit!

## BABY SHOWS

Again, Baby Shows!

Each summer brings further results of the ambitions of a few private agencies in the announcement of the holding of baby shows throughout the State of Indiana. These shows are usually given under the guise of "health examinations," for a prize baby show sponsored by some local organization. Such so-called health shows are usually climaxed by a coronation, at which time the most handsome boy and the most beautiful girl are presented with loving cups and crowned "Master" or "Miss" of the county or city in which the show is being conducted.

Persistently and consistently, the Bureau of Maternal and Child-Health of the Indiana State Board of Health, and the Indiana State Medical Association have pointed out the undesirable features of these baby shows.

Why do we object to baby shows? In the first place, educationally they are unsound. It is easily seen from the foregoing paragraph that in reality these shows are not health examinations, but miniature Atlantic City and Miami Beach beauty contests. The competitive element of the show is the attractiveness of the babies. The prize or award is not decided upon the care which the mother has given the baby or the care which the doctor and the nurse have taught her to give her baby. No thought of reward is given to the mother who has carefully nursed her child through a serious illness, bringing the child back to good health and normal weight by taking the baby to her physician regularly, and closely following his advice.

On the other hand, the mother who has a Bouncing Bet, never sick a day in her life, the daughter of a casual, careless mother who seldom heeds general advice on infant feeding or child hygiene, and rarely visits a physician or attends a baby conference, presents her child. The daughter has liquid brown eyes, shining golden curls, a dimple, and the latest type of hair dress, and she is awarded the prize.

Hygienically, a baby show contradicts every basic lesson we are trying to teach. We urge limitation of our baby conferences and work out an appointment system so that each mother may have a quiet, constructive visit with the doctor. We urge mothers to have children sleep in single beds; we teach the importance of individual toilet articles; and then we hold a baby show! It is not unusual to crowd

150 babies into a room 30 feet square. They come so fast that nurses cannot inspect them as they enter. They come, sniffles and all. Baby carriages are shared. Dressing pads are not changed. Clothes get mixed up. The nurse who tomorrow will spend half an hour with Mrs. Mack explaining why formula bottles should be boiled, is blind today to the pacifier which Mrs. Mack picks up from the floor, wipes on her dress and pops into the mouth of Mrs. Allen's baby. If the doctor and nurse handle the babies, it is almost impossible to take time to scrub between children, and any kind of advice is utterly impossible in the bedlam. Tired babies, irritated and sometimes justly resentful mothers, confused volunteers, exhausted doctors and nurses, and satisfied bacteria—are these the results we seek from baby shows?

If prizes must be given, why not to the mothers of babies who have shown the best gain and received the most intelligent care during the year? Better still, shall we not work toward a goal of continuous health supervision of *all* babies in the community? This will include medical supervision by the family or conference physician, and adequate nursing service to interpret the doctor's orders and to teach the parents how to give good care with the resources at their command.

What we have said here refers strictly to baby shows, and *not* to regular, well conducted baby health clinics or baby health conferences or, better still, to private conferences with the doctor at regular intervals.

Many of the county medical societies will be approached by the enthusiastic promoters of these baby shows. It is urged that the county societies definitely go on record as being opposed to this type of health program. However, where well-meaning organizations such as service clubs, lodges, etc., have shown their interest in child health problems, the county societies should guide them in diverting their effort into constructive and permanent health services for the children of their community.

## CHARLES HORACE MAYO

"Doctor Charlie is dead" was the message that flashed across the country—yes, across the world—a little while ago. The cryptic message brought a feeling of sorrow to hundreds of thousands who had met him as patient, confrere, or friend, for "Doctor Charlie" had endeared himself to countless thousands through a surgical skill rarely equalled and through an exuberant friendliness and great understanding. We have seen him come into a hotel lobby, into a convention hall, and divers other places, immediately to be surrounded by a group of physicians all eagerly awaiting his utterances, and it mattered not whether it was a recent story of some happening in the Clinic or a bit of raconteur of which he was a master.



"Doctor Charlie" was a genius in many respects. As a surgeon, he added almost limitless pages to American surgery, for he was a "natural born" surgeon. In addition, he was a deep, conscientious student, ever seeking new lines of surgical endeavor and commonly finding the answers to many problems that had beset the profession through the years.

Born the son of a doctor in 1865 in the town which he later made known throughout the world, he graduated in medicine from Northwestern University, Chicago, in 1888. The years immediately following were spent in postgraduate study here and abroad, and later, with his brother Will, he opened a modest little clinic in Rochester, Minnesota. Of recent years little need be said, for the story of the Clinic at Rochester is known to all physicians—a story of the successes achieved by two small town surgeons who were imbued with the notion that there was something worth while in the future of surgery.

It is difficult to say just what particular field in his chosen profession added most to the reputation of Dr. Charles Mayo, but we are inclined to believe that goiter surgery was his outstanding contribution to American medicine. Others may say that his work in neuro-surgery was his most important contribution, and still others will maintain that his work in the abdomen was of paramount importance. We have chosen his work on goiter principally because of his pioneer achievements in this field. His first paper on the subject was published in 1894; two years later he published his findings in a series of 182 operations of this type. He had a mechanical ability that was a great asset, and in a recent Mayo Clinic bulletin there appeared a drawing of a little gadget of his invention that has become a part of the standard equipment of all general surgeons.

In 1915, together with his equally famous brother, he established the Mayo Foundation in connection with the University of Minnesota, and now the fund approaches the three million dollar mark. The work of the Foundation is known to every medical man in America.

Pages could be written of the work of this man. Encomiums in unlimited quantities might be given, yet much would be left unsaid. "Doctor Charlie" is gone. His monumental contributions will remain to enlighten and stimulate the medical profession of the world for decades to come. Peace to his ashes, he of blessed memory!

## Editorial Notes

There were 7,412 registrations at the recent St. Louis A. M. A. convention, and that indicates the interest of American physicians in the work of the greatest medical organization in the world. With all the hotel and other convention facilities available in St. Louis, it may be said the city was hard pressed to accommodate this unusually large registration; however, all were well cared for and came away with praise for the committee of the local medical society.

By action of the A. M. A. House of Delegates at the St. Louis session, the membership of the Council on Medical Education and Hospitals is increased to nine. This will materially add to the value of the work of this very important committee and no doubt will increase its efficiency. We sometimes wonder if our folk realize the importance of the work of this committee; even a casual reading of their annual report will be somewhat of a surprise to the average member.

We've had quite a bit to say about vacations lately but take this occasion again to remind all Hoosier medics that vacation time is with us and to urge every one of our members to do something about it. Whether it be a trip to either or both of the current fairs, a fishing trip long planned, or merely a jaunt about the state or country, you owe it to yourself and your family to get away from the daily routine. "All work and no play," you know, and who wants to be a dull boy?

Dr. R. L. Sensenich of South Bend, member of the Board of Trustees of the American Medical Association, in his testimony before a Congressional Committee hearing in connection with the Wagner Bill, handled himself like a veteran. The entire proceedings insofar as they related to a committee of physicians appearing before the Committee were printed in the June tenth issue of *The Journal of the A.M.A.* Questioned by Senators Wagner and Ellender, Dr. Sensenich presented a very fair picture of the medical side of the question at issue. *THE JOURNAL* takes this occasion to congratulate Dr. Sensenich and to thank him for his very clear presentation.

JULY BEGINS THE VACATION SEASON.  
DRIVE SAFELY!

Youngsters as well as oldsters in the habit of celebrating Independence Day by the use of fire-crackers of various sorts should bear in mind that after July Fourth of this year the sale, purchase or use of fireworks of any description in the State

of Indiana will be prohibited. We are entirely in accord with this program, for although the casualty list has decreased in the last few years, there still are far too many accidents from these explosives. In addition, we are opposed to that form of celebration of this national holiday.

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Hoosier physicians are reminded that malaria is by no means eradicated in Indiana. The average yearly death rate from this disease, in the past seven years, is more than sixteen. Malaria was rather on the increase in 1938, the reported cases numbering 72. It also should be remembered that many physicians do not report malaria, usually because of ignorance of the fact that it is a reportable disease. Some 65 cases were reported from one county, Vigo, last year, and in many other sections of the state it was generally believed that malaria was by no means an uncommon affliction. Hence it would be well in checking up on your cases of sudden onset of fever to bear in mind the possibility of malaria and not to be suspicious of an arsenical poisoning, as was the experience of a group of Indiana doctors last year.

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Under Current Comment in *The Journal of the American Medical Association* for June third, the editor has somewhat to say concerning the campaign of the food and drug administration against Bromo-Seltzer which is said to be an acetanilid-bromide preparation. It is charged by the Federal authorities that this product is misbranded "in that it is dangerous to health and because of the failure of the labeling to reveal facts material with respect to the consequences which may result from the use of the article and the failure to bear warnings against use in those pathological conditions, or by children where its use may be dangerous to health, or against unsafe dosage, or methods, or duration of administration, in such manner and form as are necessary for the protection of users." The chief inspector of the department recently advised us that within a short time investigations now under way are expected to crystallize the case against Bromo-Seltzer.

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We received a communication from one of our older members, the other day, in which he commented upon the "Gay Nineties" number of *THE JOURNAL* and said, "The quality of *THE JOURNAL* is improving and the June number is the best I have seen." This oldster, like many others, likes to recall the days when typhoid and malaria were commonly met in practise; they like to feel that they have had a part in the eradication of these one-time common scourges. A Chicago physician, a regular reader of our magazine, closes one of his periodical and always welcome notes with the statement, "The June issue was particularly good

reading and I enjoyed it very much." While we have no objection to criticism of the constructive sort, and the *JISMA* scrap book contains many of these, we do like an occasional bit of commendation.

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The trend of the times apparently is to keep experienced hands at the helm of the good ship Indiana Medicine. Thus far, *THE JOURNAL* has received reports of the re-election of three councilors who already have long years of service to their credit. They are Dr. H. C. Wadsworth of Washington who has served his district as councilor since 1931; Dr. O. O. Alexander of Terre Haute, who has been the councilor in his district since 1929, and Dr. M. A. Austin, of Anderson, who was elected councilor for his district in 1925 and has served continuously for fourteen years. At present, Dr. Austin is chairman of the council and the duties of that office have been doubly important and arduous during the past few years. We believe that all members of the Indiana profession will join us in expressing gratitude to these men for their many years of unselfish service, and their willingness to continue for another three-year term.

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Two of the larger Indiana cities, South Bend and Fort Wayne, are placed on the honor roll published annually by the American Medical Association because of their having perfect no-diphtheria records for the year 1938. This is believed to be the first time that any Indiana city of considerable size has been accorded such an honor. This distinction leads to the observation that what can be done in these two cities could also be done elsewhere throughout Indiana, and in fact it is quite possible for the whole State to be placed on such an honor roll. In this connection, it is interesting to note that while twenty-four large cities of the United States had a no-diphtheria record for 1938, the no-typhoid list for the same year is not nearly so long. However, many of these cities, while reporting the presence of the disease, do not report any deaths from typhoid. It is to be hoped that the control of diphtheria as practiced in Fort Wayne and South Bend will be undertaken in many of our other communities.

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Following closely upon the heels of the now famous Brinkley vs. AMA-Fishbein case comes the announcement that the suit filed by one Asa Brunson, the trial recently held at El Paso, Texas, came a cropper. Federal Judge Boynton, upon the conclusion of the evidence in the case, instructed the jury to return a verdict in favor of Dr. Fishbein. It seems that Brunson achieved a little more than local fame by promoting an alleged cure for tuber-



culosis and that a popular digest magazine was asked to accept an article extolling the doings of the man, Brunson. However, the editor wired Dr. Fishbein for an opinion in the matter and it was upon his reply as editor of *The Journal of the A. M. A.* that the suit was brought. In all the suits brought against the A. M. A. and Dr. Fishbein for slander, libel, or what have you, the financial awards of the various juries have amounted to the sum of one dollar! Just how long the courts, both state and federal, will continue to have to waste valuable time on such truck is a problem at present unanswered.

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*If you do not have your hotel reservation for the Fort Wayne Convention, better get it now!*

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"Lest We Regret" is the title of the booklet on safety distributed this year by the Travelers Insurance Company. The little booklet, the ninth in a series of annual publications of thought-provoking stories and statistics, asks that, the next time your club meets or your family has its annual reunion, you list the names of twenty of those present and be reminded that at the present rate, one of that twenty will be killed or injured in an automobile accident within the next five years. The way to beat the law of averages is to be *above the average* in your walking and driving habits. During 1938, the United States enjoyed its second yearly decrease in motor vehicle fatalities in more than four decades of automobile transportation, and its lowest traffic death total since the depression years of 1932 and 1933. While this record is encouraging, the death total still remains too high. There can be no complacency about a record which shows that 32,000 lives were sacrificed in one year on the altar of carelessness. In the typical American family of three children, the booklet says, the probability is that one will be injured or killed in an automobile accident before he has lived out his normal life span. Well, vacation time is here. *Drive safely!*

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*The Proceedings of the Brinkley Trial.* In this issue of *THE JOURNAL*\* appears the final installment of the proceedings of the case of *Brinkley v. Fishbein*, in which the verdict was awarded by the jury to the editor of *Hygeia*. Most significant is the charge of Judge R. J. McMillan to the jury which rendered the verdict in this case. The entire charge merits most careful consideration; indeed, some of the statements might well be read to the senior class of every medical college in this country. Particularly to be considered is that section of the charge dealing with medical ethics. Here the judge said, and it is repeated for emphasis:

In determining what is professional and not professional conduct of the physician, you may take into consideration the rules of ethics followed by the great majority of medical men and which are recognized generally in their profession. . . . The term as applied to the liberal profession, such as the practice of medicine or the practice of law, is generally understood to mean that course of conduct pursued by recognized moral practitioners either of medicine or law.

It doesn't necessarily follow that every slight deviation or change by a doctor or a lawyer from what the general body of the doctors or lawyers do would be unethical, but if his course of conduct was far beyond and contrary to the course of conduct which the other members of his profession followed, then you would say that he was unethical either in the practice of medicine or in the practice of law.

As the evidence here shows, it has practically always been considered unethical for physicians to advertise, that is to say, to advertise further than to call the attention of the public to the fact that they were there ready to practice, and by some character of card giving their location or address, or if they specialize in some particular kind of practice to so advise the public. Advertisements by which prizes are offered to secure patronage or by which claims are made of superior skill or ability are not ethical, and you may consider those matters in this case in passing on the question as to the truth or falsity of the charge. In other words, it is one of the component elements that go to make up the question as to whether this man would be classified as a quack or not. It is not entirely determinative, but it may be that it is entitled to consideration. Accordingly, in determining what is professional and unprofessional conduct by a physician you are entitled to take into consideration the rules of ethics followed by the great majority of the medical men and which are generally recognized in their profession. The conduct of the plaintiff Brinkley should not be measured against his own personal ideas with regard to what is proper. It should be measured against the ethics and approved conduct of physicians generally, and to such extent that his conduct as a physician varies from the rules of ethics recognized and observed generally he becomes subject to criticism, and criticism of his conduct is privileged unless unduly excessive and the terms of the criticism are unreasonable or unfair.

Thus a Federal Court has recognized the significance of medical ethics for the protection of the public, and the jury after due consideration placed its approval on the right of the public to have the protection that medical ethics affords.

—\**Jour. A.M.A., June 3, 1939, page 2292.*

## President's Page

### CRIPPLED CHILDREN

From the beginning of our civilization until a few years ago, the crippled child had a hard lot. The Indians cast them into the Ganges, the Spartans hurled them from a precipice, the Jews banished their cripples so that they had to beg by the roadside. Kindly references to the crippled children is seldom seen in the literature of those times. Dwarfs were used as profitable merchandise among the Romans. Children were purposely maimed, or they were intentionally crippled to a greater extent if their deformities were not conspicuous enough to be used as beggars. At the advent of Christianity, a more friendly attitude was shown toward the crippled and deformed, but this interest was not of much influence for centuries, and did not even penetrate to the church until after the Middle Ages. During the latter part of the Middle Ages, scholars and ignorant people alike looked upon cripples as superstitions, or devilish monsters, or victims of the wrath of God. Francis I burned a woman who gave birth to a deformed child. Martin Luther shared this belief and considered that killing them was a work pleasing to God. Later they were regarded with pity and were confined so that they would not annoy the community. Before 1780 the cure of club feet was thought to be impossible. At about this time and for the next half century, orthopedic surgery began to show what could be accomplished for the crippled children. During the past century great strides have been made by American and European surgeons in orthopedic surgery, and the rehabilitation of the cripple has fascinated both the medical profession and the public in general. This movement has become very popular by being sponsored by social clubs, such as the Shrine, the Rotary, and the Elks.

The problem of the crippled child is ever present. It has been estimated that there are approximately 10,000 children in Indiana suffering some physical deformity. The indigent crippled children suffering major deformities have been cared for, or are in the process of treatment in various local and State institutions. Many children having minor physical deformities are neglected. There is little statistical evidence as to the care of the non-indigent child; however, there are many of these children having inadequate care.

Of the etiological factors, congenital malformations rank high, particularly among people of lower economic levels. There are many children being born each year with club feet, dislocated hips, cleft palates and harelips. These deformities should be treated as early as possible, and this is particularly important in regard to congenital dislocation of the hips which is ordinarily not detected until the child is several years old. Any awkward or waddling gait of a child should excite suspicion and any child who fails to walk should be studied.

Congenital syphilis has in the past contributed heavily to the physical defects, developmental defects, congenital absences of parts, luetic periostitis and osteomyelitis.

Acute anterior poliomyelitis is an outstanding factor and is the highest cause of deformity due to disease. It is extremely important, particularly at this time, as the highest incidence occurs in the summer and early fall months. There seems to be no particular prevention, other than to remove children from known centers of epidemics, and avoid extremely crowded functions. The extent of the disease and morbidity may be minimized by prompt recognition of pre-paralytic symptoms, and of the use of serum, and of adequate sedation and proper immobilization. In sub-acute stages, proper immobilization, and careful massage and well directed exercise are important to recover as much function as possible. In chronic stages, practically all victims may be benefited regardless of the extent of their residual paralysis by bracing or by operative procedures in capable hands at the proper time. The principles underlying the treatment of rehabilitating have changed but little; however, the actual surgery involved in operative treatment has vastly improved in this last decade.

The summer months offer the best opportunity for rehabilitative work, for most infections are at a minimum and the physical condition of the children is at an optimum, and at this time children do not miss schooling. Traumatic causes of deformities are increased during the summer months, and auto accidents and accidents in and about the home must be reckoned with and should be given adequate treatment.

Much credit is due the Indiana State Department of Public Welfare for a state survey of these crippled children, and for furnishing an impetus to bring in crippled children who need attention.

The plan for services for crippled children for the fiscal year 1939-1940, as set forth by the Department of Public Welfare, has been accepted by the Liaison Committee of the Indiana State Medical Association. They expect to establish centers in the various hospitals in the larger cities in the State for the care of these crippled children, and much credit is due the director, Dr. O. W. Greer, for his administrative skill.

*E. M. Van Burskirk.*



## SOUTHWESTERN INDIANA POSTGRADUATE CONFERENCE

*First Session—August 8, 1939, at Evansville*

VANDERBURGH COUNTY SOCIETY SPONSORS POSTGRADUATE CONFERENCE  
ON OBSTETRICS

The following program of the Vanderburgh County Medical Society, which will be held at Saint Mary's Hospital, Evansville, on Tuesday, August 8, will be the first of a series of monthly meetings carrying out postgraduate education to the physicians of Vanderburgh and surrounding counties of the First District Medical Society of the Indiana State Medical Association.

These programs will be conducted on the second Tuesday of each month. A different topic will be presented at each monthly meeting. The September meeting is to be devoted to the subject of *Pediatrics*, the October meeting to *Tuberculosis* at Boehne hospital, the November meeting to *Traumatic Surgery and Orthopedics* at the Welborn-Walker hospital, and the December meeting to *Pneumonia*.

Similar programs, as shown elsewhere in this issue of THE JOURNAL, were given in the form of a three-day conference on June 13, 14, and 15 by the Grant County Medical Society in Marion, Indiana.

This type of postgraduate education is being sponsored by the Committee on Medical Education and Hospitals of the Indiana State Medical Association. Should these meetings prove to be popular with the local physicians, they will be made available in other strategic sections throughout the State. Any county medical societies interested in organizing such programs in their districts should communicate with the Committee on Medical Education and Hospitals of the Indiana State Medical Association.

### GRANT COUNTY MEDICAL SOCIETY CONDUCTS FIRST OF PROPOSED REGIONAL POSTGRADUATE CONFERENCES

The Postgraduate Committee of the Grant County Medical Society, working in cooperation with the Committee on Medical Education and Hospitals of the Indiana State Medical Association, the Bureau of Maternal and Child-Health, and the Department of Postgraduate Education of the Indiana University School of Medicine, held the first of their regional three-day conferences in Marion, Indiana, on June 13, 14, and 15. The first conference was devoted to the subject of obstetrics, and was conducted by Carl P. Huber, M.D., formerly of the Chicago Lying-In Hospital and Dispensary of Chicago University, and now Resident Advisor and Research Director in Obstetrics and Gynecology of the Indiana University School of Medicine.

### PROGRAM

## SOUTHWESTERN INDIANA POSTGRADUATE CONFERENCE ON OBSTETRICS

*Saint Mary's Hospital—Evansville, Indiana*

*Tuesday, August 8, 1939*

**9:00-12:00 A.M.—Clinical Conference**

**Case Presentations by:**

**Pierce MacKenzie, M.D.**

**I. C. Barclay, M.D.**

**Isidor Raphael, M.D.**

**Urban F. D. Stork, M.D.**

**Stella Boyd, M.D.**

**Victor S. Huggins, M.D.**

**12:00 Noon—Luncheon—With round table discussion**

**1:30-3:00 P. M.—Toxemias of Pregnancy**

**(Accompanied by Motion Pictures)**

**Carl P. Huber, M.D., Resident Advisor and Research Director in Obstetrics and Gynecology, Indiana University School of Medicine**

**3:00-5:00 P. M.—Forceps Operation**

**(Motion Pictures and Manikin Demonstration)**

**Carl P. Huber, M.D.**

**7:00 P. M.—Dinner**

**8:00 P. M.—Hemorrhage During Pregnancy and Labor**

**Nicholson J. Eastman, M.D., Professor of Obstetrics, Johns Hopkins Hospital, Baltimore, Maryland**

The following program was given at this Conference:

**PROGRAM FOR THE THREE-DAY CONFERENCE ON OBSTETRICS HELD AT MARION GENERAL HOSPITAL, MARION, INDIANA, JUNE 13, 14 and 15, 1939**

**Tuesday—June 13**

**4:00-6:00 P. M.—Management of Labor**

**7:30 P. M.—Toxemias of Pregnancy**

**(Accompanied by motion pictures)**

**Wednesday—June 14**

**9:00-12:00 Noon—Clinical Conference**

**(Case Presentations)**

**12:00 Noon—Luncheon—with Round Table Discussion**

**1:30-4:30—Forceps Operation**

**(Motion pictures and manikin demonstration)**

**7:30 P. M.—Hemorrhage During Pregnancy and Labor**

**Thursday—June 15**

**9:00-12:00 Noon—Period for Consultation or Operative Demonstration**

**12:00-1:30 P. M.—Case Presentations**

**4:00-6:00 P. M.—Medical Complications of Pregnancy**

**7:30 P. M.—Asphyxia Neonatorum (motion pictures)**

*(Continued Next Page)*

This was the first of a series of postgraduate conferences to be held in this region. Although arrangements are not completed at this time, it is planned to have quarterly conferences on various medical subjects in selected regions throughout the State. The contents of the programs and the meeting places are to be decided upon by the members of the local committees on postgraduate education. The other cooperating groups are to act in assisting these groups in preparing their programs and securing speakers for the conferences.

The next conference to be held in Marion, Indiana, will probably be conducted early in the fall, and will be on the subject of pediatrics. All members of the Indiana State Medical Association are heartily invited to attend these conferences.

The Committee on Medical Education and Hospitals of the Indiana State Medical Association is watching with a great deal of interest the attendance to these meetings. Should these meetings be well attended and the demand indicated, plans for holding similar conferences will be arranged by the Committee to offer equal distribution throughout the State.

## STANDARDS FOR MATERNITY HOMES AND MATERNITY HOSPITALS COMPLETED

The Liaison Committee to the Indiana State Board of Health of the Indiana State Medical Association, cooperating with the Indiana State Department of Public Welfare, has completed the work of preparing standards for maternity homes and maternity hospitals. This painstaking work was started last August, when the Executive Committee of the Indiana State Medical Association, at the request of the Indiana State Department of Public Welfare, appointed the Liaison Committee to assist in carrying out this study. In addition, these cooperating groups have had technical advice and assistance from the Bureau of Maternal and Child-Health of the Indiana State Board of Health, and the School of Social Service of Indiana University Extension Division.

Following this article will be found a copy of the law governing the licensing of child-caring institutions and maternity hospitals, which was passed by the Indiana General Assembly in 1935. (Acts 1909, Chap. 154, as amended Acts 1935, Chap. 170, p. 831).

The standards thus far prepared regulate three types of hospitals, namely, the general hospital, the home hospital, and the specialized maternity home. An effort has been made to draw up regulations which will not add extra burdens on the administrative staffs of the existing institutions at the present time, but will serve as a guide for continuous improvement of these existing types of child-caring institutions and maternity hospitals. The inspection of these hospitals will have to be carried on through a joint objective of the Children's Division of the Indiana State Department of Public Welfare, and the Bureau of Maternal and Child-Health of the Indiana State Board of Health, and the Bureau of Housing Engineering of the State Board of Health.

These regulations have now been fully prepared and will be submitted to the Executive Committee of the Indiana State Medical Association at their next meeting, and to the members of the Indiana State Board of Health. After the approval of these two groups, the standards will be recommended to the

Indiana State Welfare Department for final adoption. After their adoption by the State Welfare Board, and approval by the Attorney General of Indiana, inspection and licensing of maternity homes and hospitals will be started.

The Liaison Committee feels that this has been a forward step, and that it should receive the full cooperation of each member of the Indiana State Medical Association. As soon as the standards are formally approved, they will be prepared in printed form and made available to any member of the Indiana State Medical Association through the Director of the Children's Division of the Indiana State Department of Public Welfare, 141 South Meridian Street, Indianapolis, Indiana.

### I. LICENSING LAW

#### CHILD-CARING INSTITUTIONS AND MATERNITY HOSPITALS

(Acts 1909, Chap. 154, as amended Acts 1935, Chap. 170, p. 831.)

(Figures in parenthesis refer to section in Burns' Revised Statutes of 1926.)

#### License Necessary

Section 1. (9889) It shall be unlawful for any person, firm, corporation or association to conduct or maintain a maternity hospital, to conduct or maintain a boarding house for infants, to conduct or maintain a boarding home for children, or to engage in, or assist in conducting, a business of placing infants, as herein defined, without having in full force a written license therefor from the Department of Public Welfare: Provided, That nothing in this act shall apply to any state institution maintained and operated by this state.

#### Maternity Hospital, Definition

Sec. 2. (9890) The term "maternity hospital", as used in this act, shall be held to mean a house or other place maintained or conducted by any one who advertises himself or holds himself out as having or conducting a maternity hospital or boarding house, or a house or any other place in which any person receives, cares for or treats, within a period of six months, more than one woman during pregnancy, or during or after delivery, except women related to him by blood or marriage: Pro-



vided, however, That nothing herein shall be construed to prevent a nurse from practicing her profession under the care of a physician in the home of the patient, or in a regular hospital other than a maternity hospital or boarding house for infants.

#### **Department of Public Welfare—Duties**

Sec. 6 (9894) The Department of Public Welfare shall have the power to grant licenses to persons or organizations to maintain maternity hospitals, or boarding houses for infants, or boarding homes for children, or to engage in or assist in conducting the business of placing infants, as defined in sections 2, 3, 4, and 5 of this act. No license shall be granted for a term exceeding one year. It shall state the name of the licensee, the particular premises in or at which the business shall be carried on and the number of women or children that may be treated, maintained, boarded or cared for at any one time; and said license shall be posted in a conspicuous place in the house or other place at which the business is conducted. No greater number of women or children shall be kept at one time on the premises than is authorized in the license, and no women or children shall be kept or disposed of within a building or place not designated in the license. The record of such license, when issued, shall be kept by the Department of Public Welfare.

The Department of Public Welfare shall annually, or oftener, if found desirable, visit and inspect, or designate a person to visit and inspect, the premises and investigate the manner of conducting the business licensed. Such person shall have the right to call for and examine the records required by the act to be kept, and to inquire into all matters concerning such institution and house and women and children therein, and it shall be the duty of the licensee to give all reasonable information to such persons and afford them every reasonable facility for examining the records, inspecting the premises and seeing the inmates thereof. (As amended, Acts 1935, p. 832.)

#### **License—Revocation—Appeal—Bond**

Sec. 7. (9895) It shall be the duty of the Department of Public Welfare to provide such general regulations and rules for the conduct of all maternity hospitals, boarding houses for infants, boarding homes for children, and for the business of placing infants as shall seem advisable to said department and not inconsistent with any of the provisions of this act.

The Department of Public Welfare may revoke such license when, in its discretion, any provision of this act is violated, or in any case where, in the opinion of said department, such maternity hospital, boarding house for infants, or boarding home for children is maintained without due regard to the health, comfort and morality of the inmates, or without due regard to the standards of care required by the Department of Public Welfare, or when the policies followed in the placing of children are contrary to the rules set up by the

Department of Public Welfare. The Department of Public Welfare shall note such revocation upon the face of the record thereof, and shall give notice, in writing, of such revocation to the licensee.

#### **Maternity Hospital Records**

Sec. 8 (9896) Every person, firm, corporation or association that conducts, or holds a license to conduct, a maternity hospital as herein defined, shall, upon the admission of any woman or patient, make a record in a form to be prescribed by the Department of Public Welfare, wherein shall be entered the true and correct name of such woman or patient, with her place of residence. Every birth which takes place in any such maternity hospital shall be attended by a legally qualified physician, and a record shall be kept by the persons conducting such hospital containing the date of the birth of the infant, together with the name, sex and color thereof, the name and address of the mother of such infant and of the physician attending the birth. The surname of the child, if illegitimate, shall be that of the mother. An accurate copy of the records mentioned in this section shall be sent to the Department of Public Welfare at such times as the department shall require. (As amended, Acts 1935, p. 833.)

Sec. 9 (9897) Every person, firm, corporation or association holding a license as provided herein, shall keep a record in a form to be prescribed by the Department of Public Welfare, wherein shall be entered the name, age, sex and color of every child born on the premises or received for care, home finding, or disposition, together with the name and address of each of the parents of said child, the name of every woman and every child who dies while in his care, together with the date of such death; also the name and residence of the person or agency with whom the child is placed or by whom it is adopted; this entry to be made within twenty-four hours after the admission or dismissal of a woman or a child, giving full and accurate information concerning the disposition of each. A correct copy of such record shall be sent to the Department of Public Welfare at such times as the department shall require. (As amended, Acts 1935, p. 833.)

#### **Licenses—To Whom Granted**

Sec. 13 (9901) Said Department of Public Welfare is hereby empowered to grant a license for one year to any maternity hospital, or boarding house for infants, or boarding home for children, or placing agency, that it believes is needed and is for the public good and that is conducted by reputable and responsible persons or associations. (As amended, Acts 1935, p. 834.)

#### **Penalty for Violation.**

Sec. 14 (9902) Any person who shall violate any of the provisions of this act shall be guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine of not more than three hundred (300) dollars, or by imprisonment for not more than one year, or both.

## UNDER THE CAPITOL DOME

The office of the Indiana State Board of Medical Registration and Examination will be closed from July 20 to August 7.

### INQUIRE BEFORE YOU TRAVEL

T. A. Dicus, chairman of the Indiana State Highway Commission, has issued a suggestion that motorists can save themselves time and mileage during the summer road construction and repair season by consulting detour bulletins issued regularly by the department. They are issued each week because a considerable amount of re-routing is necessary. The bulletins are provided to 3,000 newspapers, filling stations, travel agencies, and other information centers.

### ROCKY MOUNTAIN SPOTTED FEVER

Possibility of greater than normal danger of development of cases of Rocky Mountain Spotted Fever this summer was seen in the report of Frank N. Wallace, state entomologist, that the 1939 crop of insects is the largest in several years.

In connection with an article by Dr. Louis A. Sandoz of South Bend in *THE JOURNAL* last month, which included a discussion of incidence of the disease in Indiana, Mr. Wallace pointed out that wood ticks, carriers of the disease when infected, are considerably more prevalent than usual. The entomologist said that he has received numerous reports from several sections of the state indicating a heavy wood tick population. The reports, Mr. Wallace said, also showed that practically all insects native to Indiana are exceedingly prevalent this year. This includes mosquitoes, also.

A large number of common flies later in the summer was predicted by Mr. Wallace. Commenting that, "I have seen only one man using a fly swatter so far this year," Mr. Wallace suggested that Hoosier medical men suggest, whenever possible, to their clients that they start swatting flies early. "Every one killed now," he pointed out, "is just as good as killing a thousand or more later in the summer."

The prevalence of all forms of insect life this year was a result of the unusually mild winter. The relatively warm weather served to protect the insect life.

### GOVERNMENTAL SPENDING

A trend toward more liberal spending by governmental units of Indiana for various health and sanitation activities is revealed in a ten-year study made by the State Division of Accounting and Statistics.

A general steady up-trend was interrupted by the depression, but later years—after the most severe shock financially—indicated a return to the increased expenditures for health activities.

Officials of all units of government, including the state, the counties, cities, towns, and townships, shared the practical health-consciousness that was reflected in the financial study of the accounting and statistics division.

The report showed that the state government spent \$367,418.82 for health and sanitation activities in 1929. By 1932 the annual expenditure had increased to \$468,959.02. But the following year, 1933, expenditures for this type of governmental activity by the state had made a sudden drop to only \$259,987.55. However, with the next year the up-trend set in again. By 1935 it reached a total of \$366,191.99. The total spent by the state government in 1938 reached an all-time peak of \$518,089.80. The division's study showed that the average annual expenditure by the state government for health and sanitation activities for the ten-year period, depression years and all, was \$396,167.52.

The state's ninety-two counties had a similar experience in health activity expenditures. The years 1928 to 1937 (latest available) were used for the study for all units except the state. For 1928 the counties spent \$1,796,848.83, and in succeeding years increased gradually until 1931 when the drop set in. Each year there was a cut until 1934, when the up-swing began again. By 1937 the upward trend had carried the total spent for health and sanitation to \$2,141,000.33. The ten-year average for counties was \$1,835,211.36.

The trend in the state's cities, while reflected, was not quite so noticeable as in case of the counties. Cities apparently did not curtail their expenditures for health activities even during the worst of the depression to the extent that was observed in other governmental units. The combined report for all Indiana cities showed expenditures of \$3,134,951.08 in 1928, while the lowest point, which was reached in 1933, was \$2,301,269.23. Peak expenditure was reached in 1936 with \$4,354,945.48. Construction of disposal plants was understood to be the explanation of the marked increase that year. The average annual expenditures by the cities for the ten-year period was \$3,329,677.31.

Towns, naturally, spent much less. First year, 1928, of the study, they spent \$101,405.36. The leanest year was 1933 when only \$56,499.08 was spent. The year 1937, however, witnessed expenditure of \$159,586.81 (which was a slight drop from the peak year of 1936). The ten-year average was \$118,756.22.

The picture of the townships shows a very sharp up-trend. In 1928 these units spent only \$24,129.15. The bottom was reached in 1933 with expenditures of only \$6,400 by all Indiana townships for health and sanitation. But the following up-trend was sharp and for 1937 the total was \$47,618.72. The ten-year average for townships was \$33,268.17.



## Deaths

JAMES E. DONNELLY, M.D., of Terre Haute, died June seventh. Dr. Donnelly was sixty-seven years old. He had practiced in Terre Haute since 1901. Dr. Donnelly graduated from Rush Medical College, University of Chicago, in 1901, and was a member of the Vigo County Medical Society, the Indiana State Medical Association, and the American Medical Association.

ROBERT S. TAGGART, M.D., of New Washington, died June tenth, aged sixty-nine years. He had been a prominent citizen of Clark county all his life. Dr. Taggart graduated from the University of Louisville School of Medicine in 1893, and was a member of the Clark County Medical Society, the Indiana State Medical Association, and the American Medical Association. He had been in active practice forty-five years, following the profession of his father and grandfather.

JOSEPH B. SEAMAN, M.D., of Mishawaka, died June third, aged seventy-four years. He had practiced in Mishawaka for thirty-one years. He began practice in Osceola after graduating from the Medical College of Indiana, Indianapolis, in 1900. He was a member of the St. Joseph County Medical Society, the Indiana State Medical Association, and the American Medical Association.

ROBERT W. HARRIS, M.D., New Albany, died June eighth. He was seventy-eight years old. He had been ill for more than a year. Dr. Harris went to New Albany from Kentucky as a young man and had practiced in New Albany for fifty years. He had served continuously as head of the Floyd County Bank since it was organized in 1907, and always was active in civic affairs. He graduated from the Hospital College of Medicine, Louisville, in 1884, and was a member of the Floyd County Medical Society, the Indiana State Medical Association, and the American Medical Association.

BENJAMIN FRANKLIN CHAMBERS, M.D., of Lyons, died of self-inflicted gunshot wounds, May thirty-first. Dr. Chambers had been in ill health for several years. He was seventy-one years old. He had practiced medicine for almost a half century, after graduating from the Central College of Physicians and Surgeons, Indianapolis, in 1897. He practiced in Westphalia for a few years, then settled in Lyons where he had practiced for thirty-six years.

## News Notes

Dr. Lawrence E. Kelsey of Kewanna and Miss Loretta Lucille Cooney of South Bend were married June second.

Dr. and Mrs. Joseph L. Reeve of Edwardsport celebrated their golden wedding anniversary May twenty-eighth.

Dr. Grace Parramore has been appointed resident physician for the Lake County Tuberculosis Sanitarium.

A modernistic building has been constructed in Evansville containing offices for four physicians and is now occupied by Dr. F. Minton Hartz, Dr. Edgar H. Weber, Dr. Pierce MacKenzie, and Dr. Victor Huggins.

Dr. George M. Brother has returned from Baltimore where he has taken postgraduate work and has resumed his duties as supervisor of the Fourth District Health Department.

Dr. Hubert Gros of Delphi is constructing a six-room office building in Delphi. A frame building, 32 x 22 feet, is planned, and it is to include an x-ray room with modern equipment.

Dr. William M. Loehr of Versailles will begin work on July first as assistant to Dr. Steve W. Coley, in the department of radiology of the Methodist Hospital, Memphis, Tennessee. Dr. Loehr's practice has been taken by Dr. Stephen R. Ellis of Covington, Kentucky.

The American Association for the Study of Goiter will hold its convention next year in Rochester, Minnesota. Dr. Frank Rogers of Denver, Colorado, was named president-elect to serve in 1940-41, and Dr. J. R. Yung of Terre Haute was elected counselor of the Association.

Dr. George D. Beamer of Delphi has gone to New York where he will do postgraduate work. Dr. Edgar Bridwell of Indianapolis has gone to Delphi to take charge of Dr. Beamer's practice during his absence.

According to newspaper announcement, five depots have been established for distribution of free pneumonia serum by the State Board of Health. The depots are in South Bend, New Castle, Evansville, Fort Wayne, and Indianapolis. Seven others will be established within a short time.

A medical and dental service bureau has been organized in Anderson by Victor H. Wikle and Walter B. Crunk with offices in the Citizens Bank Building. Advisory council for the bureau includes Drs. John C. Drake, Thomas M. Jones, G. C. Re-pass, and W. R. Shoemaker.

The University of Wisconsin Medical School will conduct an Institute for the Consideration of the Blood and Blood-forming Organs, September 4-6, 1939. The program will include papers and round-table discussions by European and American workers in the field of hematology. A detailed program may be obtained by addressing Dr. Ovid O. Meyer, University of Wisconsin Medical School, Madison, Wisconsin.

The twelfth graduate fortnight of the New York Academy of Medicine will be held October 23 to November 3, 1939, with the subject "The Endocrine Glands and their Disorders." Complete program and registration blank will be mailed upon request to the New York Academy of Medicine, 2 East 103rd Street, New York, N. Y. Registration fee for non-members is five dollars. The program comprises afternoon clinics, evening meetings, morning round table conferences, and scientific exhibits.

Tribute for fifty years of service for the Central State Hospital in Indianapolis was paid to Simon P. Neidigh, chief clerk at the hospital, at a dinner June sixth. As clerk and secretary for the board of trustees, Mr. Neidigh has attended every meeting of the board in the fifty years of his service, and his handwriting fills several volumes of minutes of the board. Members of the board of trustees of the institution were guests at the dinner. Mr. Neidigh is eighty-seven years old and is continuing his work at the hospital.

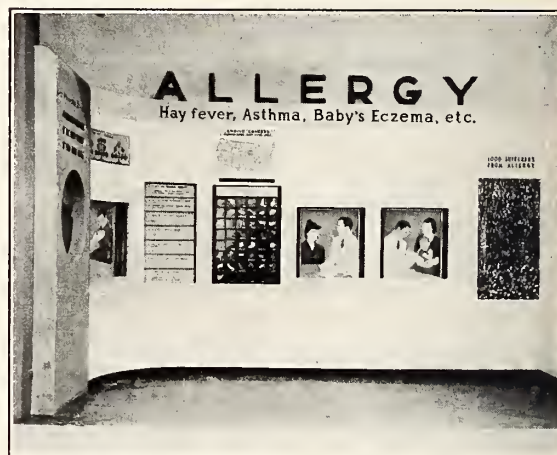
The eighteenth annual scientific and clinical session of the American Congress of Physical Therapy will be held September 5, 6, 7, and 8, 1939, at the Hotel Pennsylvania in New York City. Preceding the session, the Congress will conduct an intensive instruction seminar in physical therapy for physicians and technicians, for which registration will be limited to 100. Complete information may be obtained by addressing the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago.

The ninth annual convention of the Biological Photographic Association will be held September 14-16, at the Mellon Institute for Industrial Research, Pittsburgh, Pa. The program will be of interest to scientific photographers, scientists who use photography as an aid in their work, teachers in the biological fields, technical experts and serious amateurs. Further information may be obtained by writing to the Secretary of the Biological Photo-

graphic Association, University Office, Magee Hospital, Pittsburgh, Pennsylvania.

Dr. George P. Robb of New York received (in association with Dr. Israel Steinberg) the silver medal award of the American Medical Association at the St. Louis session for exhibits of individual investigation (group I). The awards are based on originality and excellence of presentation. The exhibit illustrated visualization of the chambers of the heart, the pulmonary circulation, and the great blood vessels in man. Doctor Robb graduated from the Indiana University School of Medicine in 1926.

At a recent meeting of the Cincinnati Dermatological Society, Dr. Daniel Kindell of Cincinnati was made president, and Dr. Eric Dalton of Indianapolis was elected vice-president. Drs. F. M. Gastineau, Norman Beatty, Theodore Rhodes, Walter Tinsley, and Russell Arbuckle of Indianapolis were elected to membership during this year. Dr. W. W. Duemling of Fort Wayne, Dr. S. R. Mercer of Fort Wayne, and Dr. Louis Sandoz of South Bend also were elected to membership. Dr. Don Kelly and Dr. Dalton of Indianapolis have been members of the society for some time.



Lederle's exhibit at the New York World's Fair includes an exhibit on allergy and one on pneumonia. Each exhibit is controlled by a committee of specialists on these diseases. The pneumonia exhibit presents pictorially the best composite medical opinion on how a pneumonia case should be treated. The second exhibit on allergy consists in part of three 2-minute dramas on allergy. Animated question boxes form a part of this exhibit. Physicians visiting the New York fair are entitled to exclusive privileges in the Professional Club in the same building. Admission to the club is obtained by simple identification as a doctor, without charge, and is available to physicians and their guests. Provision is made there for consultation with exhibit sponsors on technical questions.



"Safeguarding Medicinal Products by Research and Control" is the subject of an interesting exhibit sponsored by E. R. Squibb & Sons at the New York World's Fair. The exhibit is housed in the Medicine and Public Health Building on Constitution Mall where also will be found the exhibits of the American Medical Association, the Rockefeller Foundation, the American Public Health Association and other similar organizations as well as other pharmaceutical houses. The Squibb exhibit gives to the layman an idea of what research is contributing toward the medicine of tomorrow. Some of the results of recent investigations on vitamins are featured, and vitamin K is described in detail; most of the known vitamins in crystalline form are also on display. The exhibit includes a tribute to the part played by the animal world in hastening and extending man's conquest of disease.

Other exhibits sponsored by pharmaceutical houses at the Fair include one on diabetes and the anemias by Eli Lilly and Company; the Ciba Pharmaceutical Company's exhibit on endocrinology, and the exhibit on syphilis by Parke Davis & Company.

Mrs. Isaac Born of Indianapolis has been reappointed as Indiana commander of the Women's Field Army Against Cancer. Mrs. Born has served one year in this capacity. The appointment was made by Dr. Clarence Cook Little, New York, managing director of the American Society for Control of Cancer. Complete report of the annual enlistment campaign conducted in April of this year is not yet available, Mrs. Born said, because women in some sections of the state are still at work and returns continue to come into the state headquarters.

The American Board of Obstetrics and Gynecology has announced that at the recent examinations held by the Board in St. Louis, 259 candidates were examined, of whom 228 were successful in the examinations and were certified by the Board, 29 failed, and 2 examinations were not completed by candidates. At the annual meeting of the Board it was found necessary to increase the application and examinations fees. Hereafter the application fee will be fifteen dollars, and the examination fee will be seventy-five dollars. (This does not apply to candidates whose applications were filed prior to May 12, 1939.) The next examination will be held December 2, 1939, in various cities of the United States and Canada. The Board also announces that it will hold only one Group B, Part I, examination in this and subsequent years. Applications for admission to this examination must be on file in the secretary's office not later than October 4, 1939. Further information and application blanks may be obtained from Dr. Paul Titus, secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

## INDIANA UNIVERSITY NEWS NOTES

At the 110th annual commencement exercises of Indiana University, held June 5, the doctor of medicine degree was conferred on the following:

Robert Acher, Terre Haute; Leslie Baker, Aurora; Mary Bartholomew, Goshen; James Battersby, East Chicago; Theodore Meyer, Bluffton; LaVerne Miller, Evansville; Raymond Miller, Indianapolis; Anna Louise Milleson, Shelbyville; Marion Morris, Indianapolis; Louis Nie, Huntington; Delmar Parke, Muncie; Delbert Parsons, Greentown; A. David Price, Marion; Samuel Richter, Gary; Paul Rieth, Goshen; Glynn Rivers, Muncie; Franklin Rudolph, Lowell; Robert Salassa, Logansport; Robert Scott, Knightstown; James Shanklin, Hammond; Maynard Shiffer, Fort Wayne; Cleo Shellenberger, Indianapolis; John Smith, Lebanon; Willard Smullen, Bentonville; William Stafford, Plainfield; David Stone, Indianapolis; Raymond Stover, Kokomo; Ames Templeton, South Bend; William Tipton, Brazil; Milton Tomak, North Judson; Julius Travis, Indianapolis; Mrs. Mary Diggs Travis, Indianapolis; Richard Trockman, Evansville; James Walker, Indianapolis; Charles Walters, Mishawaka; Wesley Ward, Indianapolis; James Ware, Huntington; Carroll Warren, Marshall; John Warren, Winchester; Ward Warren, Marshall; John Weaver, Washington; Fielding Williams, Dale; Ralph Wilmore, Winchester; Fred Wilson, Hammond; Edwin Wunderlich, Logansport.

Geraldine Baumgartner, Fort Wayne; Shirley Benham Jr., Leavenworth; Roderic Boling, Ladoga; Thomas Brady, Gary; Israel Brill, Indianapolis; Harry Brown, Cicero; Irvin Caplin, Indianapolis; Francis Carrel, Lebanon; Harriet Clark, Indianapolis; Hubert Collins, Indianapolis; Charles Comer, Mooresville; James Crain, Brooklyn; Earl Cripe, North Manchester; Marvin Davis, Greensburg; Henry Earhart, Mulberry; Lyman Eaton, Indianapolis; Brice Fitzgerald, Hammond; Laurel Foxworthy, Indianapolis; William Gambill, Terre Haute; A. Elizabeth Garber, Dunkirk; Louis Gilbert, Indianapolis; Charles Gillespie, Indianapolis; Meredith Gossard, Kempton; Ted Grisell, Fort Wayne; George Hammersley, Frankfort; Stanley Hammond, Indianapolis; Robert Hansell, Rising Sun; Martin Harshman, Mulberry; Bennett Harvey, Bloomington; Lloyd Headley, Indianapolis; Gordon Herrmann, Indianapolis; Kenneth Hill, Washington; Warren Hinshaw, Winchester; Philip Hodgins, Richmond; Russell Horsman, Kokomo; Marietta Houston, Indianapolis; Jack Hull, Fowler.

Irving Itkin, Woodhaven, N. Y.; William Johnston, Wabash; Paul Jones, Dugger; Howard Kahn, Indianapolis; Forest Kendall, Marion; Robert Kepler, LaPorte; Leo Kirch, Indianapolis; Mrs. Mary Spurgeon Kitchell, Terre Haute; Robert Kuhn,

Wilkinson; Clarence LaDine, Prophetstown, Ill.; Hilbert A. Leininger, Fort Wayne; George Love, Worthington; Milton McCall, Hammond; Roy McCoy, Williams; Voris McFall, Anderson; Arthur McKinley, Muncie; Walter McMannis, Lebanon; Robert McTurnan, Indianapolis; Millard Marshall, Clinton; Loren Martin, Greensburg; Lawrence Maurer, Goshen; Maurice Mentendiek, Richmond.

Dr. Gustavus A. Peters of Frankfort received the doctor of medicine degree cum laude. He received the M.D. degree from Indiana University last year. The title of his thesis for the cum laude degree was "Pectin as a Prophylactic and Curative Agent for Peptic Ulcers Produced Experimentally with Cinchophen."

The Graduate Nurses in this year's class at Indiana University numbered 32 and included: Colleen Alexander, Petersburg; Sofie Blase, Indianapolis; Bettie Brown, Indianapolis; Wilma Butler, Mooresville; Arline Close, Fort Wayne; Lois Coffing, Covington; Princess Cogan, Peru; Sarah Cotton, Madison; Eileen Dietz, Logansport; Mildred Duke, New Albany; Helen Eikenberry, Denver; Dortha Follick, Richmond; Wilma French, Bloomington; Mary Alice Gill, Indianapolis; Betty Glore, Greencastle; Barbara Goff, Crawfordsville; Dorothea Hanson, Bloomington; Frances Henderson, Atwood; Esta Herrmann, Aligarle, India; Gwendolyne Hillis, Terre Haute; Frances Lantz, Greenfield; Dorothy Leigh, Portland; Melva Lohrig, Madison; Eleanore Mothersill, Indianapolis; Geneva McAdams, Boswell; Berniece Price, Frankfort; Mrs. Elizabeth Shaffer, New Castle; Mary Frances Sherry, Connersville; Viola Sinn, Bloomington; Frances Thomas, Connersville; Virginia Williams, Greencastle; Mary Eileen Willis, Kalamazoo, Mich.

The following 46 received the Doctor of Dental Surgery degree from Indiana University this year: Tilford Beck, Batesville; Howard Binkley, New Salisbury; Wilber Boren, Princeton; John Campbell, Marion; Jack Carr, Indianapolis; James Davis, Lexington; Wilson Dyer, Worthington; Ralph Eastman, Washington; Philip Fichman, Fort Wayne; Vernon Forney, Valparaiso; David Francis, Marion, Va.; William Gainey, Indianapolis; Francis Gamble, Muncie; John Geisel, Gary; Richard Glassley, Fort Wayne; Emanuel Green, Detroit, Mich.; Paul Green, Hammond; Charles Gregg, Indianapolis; Samuel Groher, New Canaan, Conn.; Dale Harvey, Urbana, Ill.; Saul Herman, Brooklyn, N. Y.; Luis Irizarry, Lares, P. R.; John Zarabak, East Chicago; Dick Jordan, Indianapolis; Heiman Lieberman, Evansville; Wilson Livingston, Indianapolis; Louis Lonsbury, Indianapolis; Ruth Lutkemeier, Vincennes; Weldon Lynch, Anderson; James McPheeters, Covington, Ky.; John Miller, Argos; Harold Mintz, Indiana Harbor; Robert Pavy, Indianapolis; John Pell, Brazil; Wilson Prentice, Jeffersonville; Perry Ratcliff, Indianapolis; Guy Rutledge, Beech Grove; Julius Segal, Norwich, Conn.; Scott Sowers, Mor-

gantown, West Va.; Ellis Tade, Bicknell; Meredith Tatlock, Wheeler; Walter Vendes, Bicknell; Gerald Wagner, Osgood; John Whetstone, Evansville; Albert Yoder, Goshen; Edward Young, LaPorte.

#### STUDENT HEALTH SERVICE

Establishment of a student health and medical service at Indiana University with the opening of the 1939-40 school year has been announced by President Herman B. Wells. Dr. W. D. Gatch, dean of the Indiana University School of Medicine, has been named director of the program for the Bloomington and Indianapolis campuses.

The service will provide for all students in the University clinical facilities with attendant physicians and nurses, twenty-four hour provision for emergency calls, an x-ray laboratory, beds for observation cases and hospitalization. With inauguration of the service, the University physician system long utilized as a means of guarding student health will be abolished and the duties now performed by University physicians merged into the new service.

Student fees will be increased three dollars per semester to provide for the increased service.

The staff personnel will be selected in time to inaugurate the service next September. The service will cooperate with the State Board of Health in its inspection of all eating establishments patronized by students, including the University dining halls, boarding clubs, fraternities and sororities. Headquarters of the service will be maintained in Alpha Hall on the University campus.

Edmund J. Shea, at present chief medical record librarian of the Indiana University Medical Center, has been named assistant administrator of the Medical Center, to take the place of Albert H. Scheidt, who has resigned to accept an appointment as executive director of the Chicago Hospital Council.

Mr. Scheidt will take over direction July 1 of the Chicago Hospital Council composed of 36 of the leading hospitals of that city.

"Mr. Scheidt was selected for the Chicago position because he has made an outstanding record in research work and has obtained national recognition," Dean Gatch said. Mr. Shea attended Butler University and received his A.B. degree from University College, Dublin, Ireland. He has been chief medical librarian at the I.U. Medical Center since 1935.

A spinal operation to relieve pain, use of radium to remove birthmarks as well as treat cancerous growth and tumors, and standardization of tests for detecting poisons were among research accomplishments at the Indiana University Medical Center during the past year.

Hugh McK Landon, chairman of the research committee, and Dr. W. D. Gatch, dean of the Indiana University School of Medicine, have announced that research work at the Medical Center, made possible by the gifts of citizens since the James



Whitcomb Riley Hospital for Children was opened in 1924, gained considerable impetus during the year.

Dr. Robert L. Glass, who has just completed a fellowship in neuro-surgery made possible by the Louis C. Huesmann Foundation, reported that an operation has been developed whereby severance of two nerves in the spinal column has been found to be effective in eliminating extreme pain caused by various sources.

Dr. Lester Smith explained that radium treatments are being used effectively, not only in cancerous growths and tumors, but in removal of birthmarks. While such marks do not necessarily handicap the individual physically, they tend to have a powerful psychological effect on children, Dr. Smith said.

An increased supply of radium at the Center made possible wider service in cancer and tumor treatment, Dr. Smith said. He told the committee that approximately 800 patients had been treated during the year. He also praised the nation-wide campaign against cancer.

"Results of the campaign have become apparent," he said. "There have been many more inquiries concerning symptoms and stages of development. Many of these have been inquiries disclosing nothing more than unfounded fears, but many others have made possible the early discovery and treatment which are essential to cure of cancer."

Dr. R. N. Harger, professor of biochemistry and toxicology, reported that he and his staff had established standardized tests for direction of common poisons. Persons attempting suicide often refuse or are unable to tell hospital attaches what kind of poison they have taken, he pointed out, and quick detection is necessary in preventing fatalities. He said there had been a substantial demand from many parts of the country for the paper he had prepared on the subject.

The value of color photography in the teaching of medicine was demonstrated by James F. Glore, head of the department of illustration, and Dr. Clyde Culbertson.

Color photographs vividly illustrate specimens removed at operation, blood conditions, and the development of cancerous growths.

Dr. Matthew Winters, professor of pediatrics, reported on the development of pectin in treatment of diarrhea and Dr. Harold M. Trusler described experiments in new methods of treating burns.

Albert Scheidt, assistant administrator, gave a report on the research in laboratory costs, food costs, x-ray costs and nursing personnel and hours. Dr. Hugh E. Martin gave a report of studies made in nutrition and Dr. J. K. Berman, editor of the *Quarterly Bulletin* of the Medical Center, said inquiries received indicated that the publication had attracted attention in medical centers throughout the nation.

The committee appropriated \$1,000 to be used

by Dr. Gatch in setting up a special operating room in which research on sterilization of air will be conducted. Efforts will be made to establish the effect of polluted air in causing infections, sources of pollution and means of preventing or eliminating impurities.

The committee made the following grants: \$2,500 for a fellowship in pediatrics or orthopedics; an indefinite amount for the employment of James M. Hundley, student in the medical school, in a program of research in pediatrics, to be directed by Dr. Winters in the Riley Hospital laboratories, and \$1,000 for research in anesthesia under the direction of Dr. Harger and Dr. Gatch.

The Indiana University Foundation has received patent rights to a recently developed test for syphilis, acclaimed in medical circles as a simple and rapid means of diagnosing the disease.

The test, developed in 1938 by L. Y. Mazzini, Indianapolis, chief serologist of the Indiana State Board of Health and the Indiana University School of Medicine, is described by the medical profession as having outstanding characteristics in syphilis detection. Mr. Mazzini, a native of Lima, Peru, perfected the test after several years of work in which application was made to nearly 200,000 blood specimens. Several thousands of case histories also were studied by him in perfecting the test.

#### SILVER ANNIVERSARY OF NURSING SCHOOL

Alumnae and students of the Indiana University School of Nursing celebrated in June the silver anniversary of the school. Completion of the Robert W. Long Hospital on West Michigan street, Indianapolis, June 16, 1914, marked the founding of the school and of a course of training that has expanded steadily to bring a national reputation to the institution.

A banquet at the Indianapolis Athletic Club Saturday night, June 10, was followed by a luncheon the next day at the Riley Hospital and a tea from 3 to 5 o'clock that afternoon.

The first class, with five members, was graduated in 1917, and the total number of alumnae is now 700.

The school was one of the first in the country to combine college work with nurses' training. Students must complete a year of academic work before enrolling in the nursing school.

BE SURE TO READ THE  
ARTICLE ON POSTGRADUATE  
EDUCATION—PAGE 389.  
A SIMILAR PROGRAM WILL BE  
AVAILABLE IN YOUR OWN  
DISTRICT IF YOU WANT IT!

## SOCIETIES AND INSTITUTIONS

### INDIANA STATE MEDICAL ASSOCIATION BUREAU OF PUBLICITY

April 12, 1939.

Present: W. N. Wishard, M.D., chairman; F. M. Gastineau, M.D.; C. F. Thompson, M.D., and T. A. Hendricks, executive secretary.

Requests for speakers:

1939

April 18—Parent-Teacher Association, Terre Haute. Speaker requested on "Mental Hygiene in Children."

April 19—Parke-Vermillion County Medical Society, Clinton. Speaker on "Obstetrics" desired.

April 28—Young Women's Christian Association, Gary. Speaker on "Cancer" desired.

April 28—Miami County Medical Society, Peru. Speaker on "Cancer Diagnosis and Treatment" requested.

Reports on medical meetings:

1938

Aug. 3—Newcastle Rotary Club, Newcastle. "Prevention and Control of Cancer." (100 present.)

Aug. 10—Kiwanis Club, Richmond. "The Business Man's Heart." (85 present.)

Sept. 23—Cass County Medical Society, Logansport. "Today's Medical Situation." (35 present.)

Oct. 20—Commercial Club, Liberty. "Socialized Medicine." (200 present.)

Oct. 27—Kiwanis Club, Warsaw. "Diagnosing the Doctors."

Nov. 28—Kiwanis Club, Frankfort. "Socialized Medicine." (40 present.)

Dec. 7—Kiwanis Club, Muncie. "Socialized Medicine."

Dec. 21—Parke-Vermillion County Medical Society, Clinton. "Smallpox." (15 present.)

Jan. 17—Exchange Club, Richmond. "Socialized Medicine."

Jan. 18—Tri-County Medical Society, Columbus. "The Signs of Tuberculosis."

Jan. 18—Parke-Vermillion County Medical Society, Clinton. "Pneumonia—Laboratory Findings and Serum Treatment." (13 present.)

Feb. 15—Parke-Vermillion County Medical Society, Clinton. "Venereal Diseases." (14 present.)

Mar. 6—Woman's Auxiliary to the Vigo County Medical Society, Terre Haute. "Mental Health."

Mar. 14—Fayette-Franklin County Medical Society, Connersville. "Socialized Medicine." (20 present.)

Mar. 15—Parke-Vermillion County Medical Society, Clinton. "Speech and Hearing Defects." (10 present.)

Mar. 21—Rotary Club, Kokomo. "Socialized Medicine." (75 present.)

Mar. 28—Indiana University Club, Terre Haute. "Present Trends in Legislation Affecting the Practice of Medicine." (35 present.)

Mar. 30—Dearborn-Ohio County Medical Society, Aurora. "Speech and Hearing Defects." (23 present.)

Apr. 11—Kiwanis Club, Cambridge City. "How to Keep Well."

Copies of the pamphlets on the "Indiana Plan" issued by the American Legion brought to the attention of the Bureau.

Exhibit material for the Delaware-Blackford County Medical Society display which is to be entitled, "Midtown Modernizes Medicine," brought to the attention of the Bureau.

Request for information in regard to the occupational hygiene phase of the "Indiana Plan" received in a letter from C. M. Peterson, M.D., secretary of the Council on Industrial Health of the American Medical Association.

Report of the Alumni Council of Amherst College on Charles Phillips Emerson, M.D., a former member of the Bureau of Publicity, brought to the attention of the Bureau. The Bureau expressed its appreciation of this report and suggested that it be sent to the historian of the Association to be retained as a part of his records.

The Bureau discussed at some length the policy to be followed in regard to future releases. Following the discussion the secretary was instructed to write to the secretary and the editor of *The Journal of the American Medical Association* asking for an opinion as to just what the policy of the Bureau should be in its future releases; that is, should the Bureau prepare for publication in the newspapers of the state a series of releases opposing socialized medicine, or should it continue its present policy of not stressing opposition to socialized medicine but pointing out the triumphs and progress which have been made in the past and are continuing at the present time through the efforts of scientific medicine under the present system of practice? The Bureau feels that it is faced with determining a definite policy in view of the pending indictment of the American Medical Association by the Department of Justice.

### THE BUREAU OF PUBLICITY

April 26, 1939.

Present: W. N. Wishard, M.D., chairman; F. M. Gastineau, M.D.; C. F. Thompson, M.D., and T. A. Hendricks, executive secretary.

Requests for speakers:

April 27—Town Forum, Fort Wayne. "Socialized Medicine."

April 27—142nd semi-annual meeting of the Union District Medical Society, Eaton, Ohio. Speaker to talk on "The Medical Economic Picture as It Stands Today—Nationally and in the State."

June 1 or June 8—DeMolay Lodge, Indianapolis. Speaker on "Syphilis" desired.

The Bureau sent the following letter to various officers of the American Medical Association concerning future releases of the Bureau of Publicity:

"The Bureau of Publicity of the Indiana State Medical Association would be most pleased to have your opinion as to future policies to be followed by the Bureau in preparing newspaper releases for the public press of Indiana. The question arises as to whether or not the Bureau should change the policy which it has followed in the past concerning the subject matter of releases.

"Should the Bureau continue to point out in general ways the triumphs and good works of scientific medicine or should it give more attention to the economic phases of the subject and stress the opposition of the medical profession through a series of articles on socialized medicine?"

"From the following statement contained in the minutes of the last meeting of the Bureau of Publicity you can see that the Bureau feels that this is a question upon which advice from you as officials of the American Medical Association is greatly desired:

"The Bureau discussed at some length the policy to be followed in regard to future releases. Following the discussion the secretary was instructed to write to the secretary and the editor of *The Journal of the American Medical Association* asking for an opinion as to just what the policy of the Bureau should be in its future releases; that is, should the Bureau prepare for publication in the newspapers of the state a series of releases opposing socialized medicine, or should it continue its present policy of not stressing opposition to socialized medicine but pointing out the triumphs and progress which have been made in the past and are continuing at the present time through the efforts of scientific medicine under the present system of practice? The Bureau feels that it is faced with determining a definite policy in view of the pending indictment of the American Medical Association by the Department of Justice."

The Bureau received the following answers to this letter.

From the Secretary and General Manager of the American Medical Association:

"I have before me your letter of April 17 addressed to Doctor Fishbein and to me, in which you ask for an expression of opinion with respect to the future policies of



the bureau of publicity of the Indiana State Medical Association. I offer my opinion for whatever you and the members of the bureau may consider it to be worth.

"I think it is highly important that the bureau of publicity of the Indiana State Medical Association should continue its established policy designed to provide the public with information concerning the factors that are involved in the provision of medical service and to acquaint the public with the accomplishments of scientific medicine. I also think it is desirable that the public should be warned against the dangers of medical frauds and of the necessity for the maintenance of high professional and scientific standards. At the same time, I know of no reason why the bureau of publicity should not undertake to inform the public concerning the nature of the policies of the organized medical profession in the United States and the reasons why these policies have been established and why an effort has been made to maintain them. To do that would, of course, involve the publication of information concerning sickness insurance and the reasons why the organized medical profession is opposed to compulsory sickness insurance and to any proposals that would involve political domination of medicine. I think it is essential that the Indiana State Medical Association shall continue to occupy the status of a scientific and educational organization and that it should not be classified by governmental agencies as a business concern. I can think of no reason why the public should not be made to understand, if possible, the reasons why medical societies must be considered as scientific and educational organizations."

From the Editor of *The Journal of the American Medical Association*:

"I took the liberty of submitting your memorandum on publicity to two of the assistants in the field of press relations. One of them says that he believes the Bureau of Publicity of the Indiana State Medical Association should follow the policy of well balanced releases, dividing them between the scientific and the economic phases. The sending out of too much publicity on economics, especially on socialized medicine, will make newspaper editors think you are dealing wholly in propaganda rather than in educational material.

"He says that press releases pertaining to medical economics should be prepared so that they do not always stress opposition to undesirable parts of the federal program but include also most of those parts of the program which are approved by the medical profession.

"It is important to avoid phrases like 'socialized medicine,' 'state medicine,' and similar ill-defined terms. Unfortunately, newspaper clippings which come into this office are usually headed with the words 'fight' and 'oppose,' giving the idea that the profession is against everything. We should try to get rid of such phrases.

"It might be well to emphasize the fact that medicine is a highly scientific and technical subject in which the average person cannot choose for himself and that there must be dependence upon the medical profession for leadership in any program."

Upon authority of the Executive Committee the following letter was sent to the American Medical Association and various committeemen of the State Association concerning concise statements in regard to the medical organization viewpoint upon socialized medicine:

"Although voluminous material is available both for and against socialized medicine, the Executive Committee of the Indiana State Medical Association feels that a definite need exists for a compilation of short statements that will be available to physicians who desire to prepare talks upon socialized medicine and material that will be suitable for use in press statements. A request for such material has come from Dr. Hugh S. Ramsey, chairman of a committee of the Monroe County Medical Society (Indiana), who has been appointed to arrange for some organized presentation of organized medicine's stand against proposed federal compulsory health insurance and allied problems."

"The request of Dr. Ramsey continues as follows: 'I thought the State Association might have some well worded articles for release through local papers. . . . I had in mind getting some newspaper publicity on the matter to focus attention on it and then to have the subject briefly discussed before the Chamber of Commerce, Service Clubs, etc.

"Do you have information from other societies as to how this can best be done? I believe no time should be wasted in view of the fact that Senator Wagner has already introduced his measure in the Senate.

"I should like specific suggestions. . . . Do you have any literature suitable for lay distribution which would be readable and forceful?"

"In answer to Dr. Ramsey's request numerous pamphlets and articles were sent to him by this office, by the Bureau of Medical Economics and the Bureau of Health and Public Instruction of the American Medical Association. However, the Executive Committee, in discussing this matter at its last regular meeting on April 10, felt

that the busy doctor would not have time to go through all of this material or even a small part of it and that a series of short statements concerning the stand of organized medicine against socialized medicine should be available to every doctor in the state.

"In order to prepare such a series of statements the suggestion was made by the Executive Committee that each of the officers and the men on the above committees make a brief statement and submit it to the headquarters office of the State Association in order that these statements may be compiled and copies supplied where they can best be used by the individual physicians throughout the state. The Committee felt that if this is done the Doctors throughout the state would be telling substantially the same story to the laity rather than running the chance of talking at cross purposes.

"Along this line we would therefore appreciate any suggestions you might have in regard to this and any statements that you might feel should be contained in such a compilation to be used by physicians. The Committee specifically requests that each of the officers of the State Association, the chairmen of the Legislative Committee, and the representatives from Indiana in the House of Delegates of the American Medical Association, prepare statements for this use."

The following answers to this letter have been received:

From the Secretary and General Manager of the American Medical Association:

"I have before me your communication of April 17 pertaining to 'need for concise and clear statements to be used by physicians in combating socialized medicine.' You ask for my comment with respect to the matters discussed in this statement, and I am glad to offer it for whatever you may think it is worth.

"I am inclined to agree that there may be need for concise and clear statements to be used by physicians in combating socialized medicine. However, I do not believe that all of those who might be delegated to utilize such statements for the purposes indicated will agree that the selections which may be made by any individual or any small group of individuals are the best that can be made. In other words, a short, concise statement which will be considered by one man to be extremely useful may not appeal to another. Moreover, I think there is some danger in using statements that may be so abbreviated as to mean one thing but as to be interpreted as meaning something else. Much depends on what is meant by concise statements, and much depends on the use to which such statements may be put and the manner in which they are presented.

"I am particularly interested in the comment included in your communication to the effect that a busy physician does not have time to read the numerous pamphlets and articles that may be made available to him or 'even a small part' of such material. With all due respect to everybody concerned, I entertain strong doubt that anyone who has not given a very considerable amount of study to the general subject of sickness insurance should undertake to present arguments on that subject.

"However all this may be, I think it is a splendid idea to have the members of official bodies of the Indiana State Medical Association submit brief statements to the Executive Committee in order that these statements, after proper examination and such editing as may be indicated, can be distributed among the members of your association, but again I respectfully submit that it is difficult to include in very short statements necessary safeguards against misinterpretation and misapplication."

From the chairman of the Bureau of Publicity:

"Replying to your communication just received as to the need of concise and clear statements to be used by physicians in combating socialized medicine, I wish to give my hearty approval to the question involved. At the last meeting of the Bureau of Publicity you will recall that I suggested that there should be a concise statement of the attitude of the profession, including criticism of the proposal, and that every effort should be made to get county society members to use their influence with their own congressmen.

"At the next meeting of the Bureau of Publicity I hope you will have prepared in condensed, terse form, a series of suggestions expressing the attitude of the profession of medicine and various points in relation to proposed national legislation.

"My thought is that we should get into the hands of every county society a clearer, more definite, and yet a quite brief statement which they can use in writing their congressmen, at the proper time."

The Bureau discussed the details of the "Middletown Modernizes Medicine" exhibit (sequel to the "Indiana Plan") which is to be shown at the St. Louis meeting.

(1) The copy for the booklets is now ready to be sent to the printers.

(2) The material for the "Indiana Plan" scrapbook which is being prepared has been collected and is ready

to be photographed in order that several copies of the scrapbook may be available.

(3) Diagram for the exhibit booth was studied and approved by the Bureau.

(4) The release which is to go to the newspapers was ordered prepared to be sent out the week preceding the American Medical Association meeting, final copy of which is to be sent for approval to the members of the Bureau of Publicity two weeks before the meeting.

Letter received from the executive secretary of the Wayne County Medical Society of Detroit saying that the county medical society had rejected a proposal for an extensive campaign of newspaper publicity prepared by a commercial advertising agency. The letter read in part as follows:

"Although the material is very well prepared and the medical profession needs the benefits of such a program in its current battle against government control, still the Council felt that there are other means and ways of accomplishing the same objective without placing this additional burden of \$22.50 on each member of the Society."

Letter received from the Public Relations chairman of the Woman's Auxiliary to the Indiana State Medical Association asking for approval of the Bureau on the following two suggested projects to be sponsored by the Auxiliary:

"1. That each Auxiliary cooperate with the local hospital or hospitals in having an 'open house,' a day when the hospital will be open to the public at which time the women will act as hostesses and people will be shown around the hospital and become acquainted with the facilities it offers to the patients.

"2. That each Auxiliary hold an essay contest in the local schools (say an essay the subject being 'The Common Cold') and that each auxiliary give some local recognition of the winner. The winner of the State will broadcast his essay—possibly from the State Capitol, Indianapolis."

The Bureau approved the first project with the understanding that tact should be used so as not to disturb hospital patients. The Bureau felt that it was not advisable to approve at this time the suggestion in regard to the essay contest. The idea may possibly be good and it may be tried out in local communities, but the Bureau feels that some disadvantages and some misunderstandings might arise from high school students attempting to write on such complicated and difficult subject as "The Common Cold," much concerning the cause and cure of which is yet to be learned by physicians themselves.

The Bureau noted the article contained in the April 8, 1939, issue of *The American Medical Association Journal* concerning the abandonment at the present time in Australia of its plan for compulsory health insurance. The Bureau was informed that a note concerning this fact is to be carried in the next issue of *THE JOURNAL* of the Indiana State Medical Association.

INDIANA STATE BOARD OF HEALTH  
Bureau of Communicable Diseases  
MONTHLY REPORT, MAY, 1939

	May 1939	April 1939	March 1939	May 1938	May 1937
Diseases					
Tuberculosis .....	160	240	132	204	233
Chickenpox .....	285	386	406	120	304
Measles .....	57	100	56	2158	2677
Scarlet Fever .....	560	961	817	257	456
Smallpox .....	141	220	198	134	73
Typhoid Fever .....	11	6	4	15	4
Whooping Cough .....	250	245	128	52	352
Diphtheria .....	30	46	55	54	29
Influenza .....	55	330	1287	8	55
Pneumonia .....	40	132	159	45	49
Mumps .....	361	270	247	59	199
Meningitis .....	1	4	3	2	11
Undulant Fever .....	3	5	3	5	1
Malaria .....	1	0	0	0	0
Septic Sore Throat.....	1	2	0	0	0
Tularemia .....	2	1	0	2	0

LOCAL SOCIETY REPORTS

**Cass County Medical Society** held a dinner meeting at the Cass county hospital, May twenty-sixth. Dr. Carl Habich of Indianapolis talked on "Endocrinology as Related to the Pelvis."

\* \* \*

**Dearborn-Ohio County Medical Society** members met at the Reagan Hotel in Lawrenceburg, June first, for a dinner meeting. Various members of the society presented reports on spring medical meetings and clinics. Attendance numbered fifteen.

\* \* \*

**Elkhart County Medical Society** members met in the Hotel Elkhart, May twenty-fifth, to hear Dr. Carl Huber of Indianapolis talk on "Cancer as Related to Female Reproductive Organs." Dr. A. S. Giordano of South Bend discussed "Laboratory Diagnosis of Cancer." Attendance numbered forty.

\* \* \*

**Fayette-Franklin County Medical Society** met at the Country Club in Connersville, May eighteenth, with Dr. Clifford Straley of Cincinnati as guest speaker. Dr. Straley talked on "History of Medicine" before the eighty-two attendants at the meeting. Dr. Karl R. Ruddell of Indianapolis was a guest speaker.

\* \* \*

**Floyd County Medical Society** members met at New Albany, May twelfth, for a dinner meeting. Dr. Kenneth H. Brown talked on "Reminiscences of Obstetrics." Attendance numbered twelve.

\* \* \*

**Fort Wayne Medical Society** held a meeting at the Chamber of Commerce Building, June sixth, for annual election of officers. Attendance numbered sixty-eight. Officers elected are:

President, L. W. Elston, M.D.  
Vice-president, Elmer C. Singer, M.D.  
Treasurer, E. L. Cartwright, M.D.  
Secretary, R. L. Hane, M.D.

The annual outing of the Fort Wayne Medical Society was held at the Orchard Ridge Country Club, June twentieth.

\* \* \*

**Fountain-Warren County Medical Society** members enjoyed their annual catfish dinner at Covington, June first. Dr. C. J. Clark of Indianapolis talked on "Cardiovascular Disease." Attendance numbered 64.

\* \* \*

**Gibson County Medical Society** members met in the Hotel Emerson at Princeton, June twelfth. Dr. Gerald Kempf of Indianapolis talked on "Uses and Results of Sulfanilamide and Sulfapyridine." Attendance numbered 15.

\* \* \*

**Hendricks County Medical Society** met in Crawley's Hall at Danville, May twenty-fifth with Dr. W. E. Gabe of Indianapolis as guest speaker. Dr. Gabe's subject was "Abdominal Injuries, Especially Those Caused by Auto Accidents." This was the last meeting until fall.

\* \* \*

**Jasper-Newton County Medical Society** held a meeting at Brook, Indiana, June first. Dr. Reynold Hickman of Logansport talked on "Eye Diseases in General Practice." Twelve members and seven guests attended.



**Knox County Medical Society** members met at the Jewel Cafe in Vincennes, May sixteenth, to hear Dr. W. D. Davidson of Evansville talk on "The Orthopedic Treatment of the Poliomyelitis Patient." Attendance numbered thirteen.

**Lafayette Academy of Medicine** held a meeting May twenty-third. Dr. Wyne Glock of Fort Wayne was guest speaker, his subject being "Fractures of the Neck of the Femur."

**Miami County Medical Society** met at Dukes Miami County Hospital in Peru, June second, for a dinner meeting. Dr. Paul A. Techsner of the American Medical Association Bureau of Health Education was the guest speaker, his subject being, "The Doctor as a Teacher." Attendance numbered thirty.

**Montgomery County Medical Society** members met at Culver Hospital, Crawfordsville, May eighteenth. Dr. William Woods of Indianapolis talked on "Common Foot Ailments." Attendance numbered twenty-two.

**St. Joseph County Medical Society** members held a meeting at South Bend, May ninth. Dr. Robert Henderson talked on "Some Impressions of the St. Joseph County Medical Society." Attendance numbered forty. A resolution regarding the formation of a cancer control committee was introduced.

At the May twenty-third meeting, Dr. C. E. Savery of South Bend read a paper on "Clinical Aspects of Allergy." Attendance numbered seventy. At this meeting the society voted to employ an executive secretary. The vote was fifty-one for and eighteen against the project.

**Tri-County Medical Association** held a meeting at Petersburg, May twenty-third. Dr. E. E. Long of Shoals talked on "Cancer." This was a dinner meeting with twenty-one in attendance.

**Vanderburgh County Medical Society** entertained the dentists and druggists of Vanderburgh county at a picnic and outing, June twenty-ninth, at the Evansville State Hospital.

**Wabash County Medical Society** members held a meeting at the Wabash County Hospital, June seventh. Dr. Wendell Kelly of Indianapolis talked on the "Duty and Function of the State Board of Health." Attendance numbered eighteen.

**Wayne-Union County Medical Society** held a meeting at Liberty, June eighth. Dr. Clyde Culbertson of Indianapolis talked on "Laboratory Procedures." Attendance numbered twenty-six.

## DISTRICT MEETINGS

### FIRST DISTRICT MEDICAL SOCIETY

The Gibson County Medical Society was host to the First District Medical Society meeting, Thursday afternoon and evening, June eighth, at the Princeton Country Club.

Golf was the afternoon entertainment, and suitable prizes were awarded the winners.

The Gibson County society sponsored a meeting for the public at the Roxy Theater in the afternoon, and it was well attended, approximately 250 persons, mostly women and children, attending. Dr. Minor Miller of Evansville gave a very interesting talk on "Syphilis,"

followed by a moving picture film on the same subject. Dr. W. C. Caldwell of Evansville talked on "Cancer" and his talk was followed by a movie entitled "Youth at Play." The meeting was well advertised throughout the county with posters and placards supplied by the Indiana State Board of Health. The State Board of Health also supplied two large displays on the subjects of syphilis and cancer which were on display for three days in the court house and in the salesroom window of the gas company.

The district meeting followed the dinner at the Country Club. Entertainment was supplied by the Foster Quartette of Indianapolis. The meeting was well attended by members from the District. Dr. Karl Rudell, Thomas Hendricks and others from Indianapolis attended.

O. M. GRAVES, M.D., *Secretary*.

### SECOND DISTRICT MEDICAL SOCIETY

The annual meeting of the Second District Medical Society was held in the auditorium of the new I.U. Medical Building at Bloomington, Indiana, on May 24, 1939.

Dr. H. C. Wadsworth of Washington was re-elected councilor and Dr. J. S. Brown of Carlisle re-elected secretary. Dr. J. B. Maple of Sullivan was elected to succeed Dr. W. C. Reed as president.

The following program was enjoyed by the members: Some Experimental Studies in Hormones—Professor Robert T. Hill of Indiana University.

Hormones in General Practice—Dr. John Warvel, Indianapolis.

Sulfapyridine—Dr. C. J. Clark, Indianapolis.

Sulfapyridine in General Practice—Dr. J. O. Richey, Indianapolis.

Endometriosis—Dr. W. D. Gatch of Indiana University.

At 6:30 P.M. a sumptuous dinner was served at the Country Club, followed by entertainment.

The registration totaled eighty-five.

J. S. BROWN, M.D., *Secretary*.

### FIFTH DISTRICT MEDICAL SOCIETY

The annual spring business meeting of the Fifth District Medical Society was held June 7, 1939, at Dr. S. C. Darroch's country home, three miles west of Cayuga, Indiana.

Following an extremely interesting and practical talk on cardio-vascular-renal disease by Dr. C. J. Clark of Indianapolis, the society went on record endorsing Dr. A. M. Mitchell of Terre Haute for the office of president-elect of the Indiana State Medical Association, with instructions that his name be presented at the Fort Wayne meeting of the Association.

Owing to the fact that the councilor's term expires this year (and there will be no further meetings of the Fifth District Society prior to the meeting of the House of Delegates in Fort Wayne), Dr. O. O. Alexander of Terre Haute was re-elected councilor for three years, the term to start January 1, 1940.

Following the short business meeting, a picnic lunch was served.

H. H. WARD, M.D., *President*.

### SIXTH DISTRICT MEDICAL SOCIETY

The next meeting of the Sixth District Medical Society will be held at Brookville, May 15, 1939.

SAMUEL KENNEDY, M.D.

### EIGHTH DISTRICT MEDICAL SOCIETY

The annual meeting of the Eighth District Medical Society of the Indiana State Medical Association was held in Anderson, Wednesday, June 14, with an attendance of seventy physicians from Madison, Delaware, Blackford, Jay, and Randolph Counties, which comprise the Eighth Medical District. There were also a number of visitors from surrounding counties.

The afternoon program was conducted through the kindness and cooperation of the Anderson Delco Remy Division of General Motors. An inspection tour of the members of the District was conducted through the various departments of the Delco Remy plant and Dr. F. B. Wishard, medical director of the plant, showed the Society the medical facilities provided for the plant employees.

The afternoon meeting was conducted by Dr. F. B. Wishard who introduced Mr. F. C. Kroeger, general manager of the Delco Remy Division of General Motors Corporation. Mr. Kroeger spoke briefly on the advancement of preventive medicine in industry, especially as related to the prevention of industrial health and accident hazards. He particularly stressed the importance of a cooperative relationship between industrial medicine and the general medical practitioner. Dr. Clarence D. Selby, medical consultant of General Motors Corporation, was then introduced to the meeting.

The first paper was presented by Mr. George A. Coburn, personnel director of Delco Remy, who spoke on "Determination of Industrial Health Exposures and Practical Methods of Control." He pointed out the necessity for the control of industrial hazards of various kinds and showed one of the methods of making a departmental summary of health hazards. Various methods of study were described and some of the technical procedures demonstrated, including the method of dust counting most widely used. Dr. F. B. Wishard then showed a number of rare and interesting conditions discovered in the x-ray examinations of employees. He particularly stressed the value of x-rays of the chest in industrial preventive medicine. Dr. J. H. Stygall of Indianapolis followed with a discussion of several cases of pulmonary tuberculosis from among the plant employees. The final paper of the afternoon was given by Dr. Frank Gastineau of Indianapolis on "Industrial Dermatitis and Skin Lesions found in Industry." This paper was illustrated by cases from among the employees which were presented by Dr. A. W. Elston of the Medical Department of Delco Remy, with general discussion led by Dr. Gastineau.

The meeting adjourned after the appointment of a nominating committee who were instructed to nominate officers for the coming year. The committee had as its chairman Dr. V. G. McDonald, of Anderson, assisted by Dr. D. Covalt, secretary-treasurer of the Delaware-Blackford County Medical Society, Dr. George Cring from the Jay County Medical Society, and Dr. G. B. Wilder of the Madison County Medical Society.

The evening session opened with dinner at the Grand View Country Club. After dinner the president of the Eighth District Medical Society, Dr. C. V. Rozelle of Anderson, opened the program by thanking Dr. Wishard and his staff and the officials of Delco Remy for their very fine part in our program. The minutes of the last meeting were read and adopted and the financial report referred to an auditing committee. The nominating committee report was presented by Dr. V. G. McDonald. The nominations were: Dr. Lall G. Montgomery of Muncie, president; Dr. L. W. Litzenger of Anderson, secretary-treasurer; Dr. M. A. Austin of Anderson, councillor. The nominations were accepted and these officers were elected unanimously. Dr. D. S. Quickel of Anderson suggested that it might be advisable to amend the by-laws to provide for the election of the president and secretary-treasurer of the society from the town

where the meeting is to be held. This was referred to the Rules Committee. Dr. V. G. McDonald moved that the councillor contact the officers of the county medical societies of the Eighth Medical District regarding the advisability of amending the by-laws to permit the various towns throughout the District to submit invitations for the annual meetings of the society. The motion was seconded and carried.

Mr. Thomas Hendricks, our State Executive Secretary, was introduced and spoke briefly. He mentioned particularly the wide interest arising from the "Indiana Plan" and its recent development "Middletown Modernizes Medicine," stressing the inestimable value of these plans as exhibited at the meetings of the American Medical Association and elsewhere. He thanked the Eighth District for its continued interest and active support of the State Society in its work, especially referring to the study and management of legislative problems. Mr. Hendricks advised careful study of the General Motors Corporation plan for hospital and sickness insurance, pointing out that plans of this type might be successful for a time and then fall into disrepute as they had in Europe.

Dr. Rozelle introduced Dr. M. A. Austin, reminding the Society that Dr. Austin had been District Councillor for fourteen years and that he was now Chairman of the Council of the State Society. Dr. Austin discussed the work of the Council and the importance of its work as related to various hospital and health insurance plans.

It was moved, seconded, and unanimously carried, that a telegram be sent to our State President, Dr. VanBuskirk, expressing the regrets of the society that illness prevented his attendance and wishing him a speedy recovery.

The scientific program was opened by Dr. Foster Hudson of Indianapolis who showed a motion picture on "The Conduct of Labor in Breech Presentation," followed by a general discussion on the conduct of labor, in which he stressed the importance of the intelligent management of abnormal labor.

The second paper entitled "Medical History" was given by Dr. E. F. Kiser of Indianapolis. This was illustrated by a series of excellent and interesting lantern slides. Dr. Kiser described the growth of medicine from the earliest times, drawing particular attention to the importance of the study of medical history as a means of gaining a broad perspective of medicine through the ages.

The meeting was closed with a few words from the retiring president, Dr. Rozelle.

LALL G. MONTGOMERY, M.D.,  
*Secretary, Eighth Medical District.*

### ELEVENTH DISTRICT MEDICAL SOCIETY

The sixty-first semi-annual meeting of the Eleventh Indiana Councillor District Medical Association was held at Peru, Wednesday, May 10, 1939.

Dr. Eva Kennedy of Camden was elected president; Dr. O. G. Brubaker of North Manchester was re-elected secretary-treasurer.

Councillor Perry was absent because of illness, and election of a councillor was deferred until the next meeting, which will be held Wednesday, October 18, 1939, in Marion.

Dr. A. W. Cordier of Manchester College was guest speaker and his talk was greatly enjoyed.

The scientific program was carried out as scheduled. The forenoon clinic and the evening banquet and entertainment were under the auspices of the Miami County Medical Society. There were 44 registered for the forenoon clinic, and 95 registered for the afternoon session.

O. G. BRUBAKER, M.D., *Secretary.*



# TWELFTH DISTRICT MEDICAL SOCIETY

The annual meeting of the Twelfth District Medical Society was held May 23, 1939, in the Masonic Hall, Decatur, Ind.

The afternoon session consisted of a talk by Dr. J. L. Pollock of Chicago. Dr. Pollock spoke on "Epilepsy." Much interest in this subject was manifested by those attending, especially in regard to therapeutic procedures and prognosis.

Following an excellent chicken dinner, Dr. R. S. Dinsmore of the Cleveland Clinic gave an illustrated talk on "Tumors of the Neck." This lecture also aroused great interest. Numerous questions were asked the speaker in regard to various surgical procedures of these conditions.

State president E. M. Van Buskirk was present. He spoke in regard to the Wagner Bill. Executive Secretary Thomas A. Hendricks reported on the favorable reception the "Indiana Plan" demonstration received at the American Medical Association meeting in St. Louis. Dr. M. A. Austin of Anderson conveyed greetings from the state council.

Dr. C. C. Rayl of Decatur was elected president for the ensuing year; Dr. L. P. Harshman of Ft. Wayne was made vice-president, and Dr. S. R. Mercer of Ft. Wayne was elected secretary-treasurer.

Registration totaled 70.

S. R. MERCER, M.D., *Secretary.*

## BOOKS

**CANCER OF THE BREAST AND CANCER OF THE UTERUS.** Second edition. By Marion Ellsworth Anderson, M.D., Clinton, Iowa. 106 pages, profusely illustrated. Paper binding. \$1.00. The Franklin Press, Clinton, Iowa, 1939.

**CANCER HANDBOOK OF THE TUMOR CLINIC, STANFORD UNIVERSITY SCHOOL OF MEDICINE.** Edited by Eric Liljencrantz, M.D., chief of Tumor Clinic, Stanford University School of Medicine, and consultant in neoplastic diseases, U.S. Naval Hospital, Mare Island and U.S. Marine Hospital, San Francisco. 114 pages with 50 illustrations. Cloth. Price \$3.00. Stanford University Press, Stanford University, California, 1939.

**A TEXTBOOK OF SURGERY:** By AMERICAN AUTHORS. Edited by Frederick Christopher, B.S., M.D., F.A.C.S., Associate Professor of Surgery at Northwestern University Medical School; Chief Surgeon, Evanston (Illinois) Hospital. Second Edition, Revised. 1695 pages with 1381 illustrations on 752 figures. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$10.00 net.

**ANEMIA IN PRACTICE.** By William P. Murphy, A.B., M.D., Associate in Medicine, Harvard Medical School; Senior Associate in Medicine, Peter Bent Brigham Hospital, Boston; Consultant Hematologist, Melrose Hospital, Melrose, Mass. 344 pages with 41 illustrations. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$5.00 net.

**SURGICAL ANATOMY.** By C. Latimer Callander, A.B., M.D., F.A.C.S., Associate Clinical Professor of Surgery and Topographic Anatomy, University of California Medical School; Member of Founders' Group of the American Board of Surgery; Member of American Association of Traumatic Surgery; Associate Visiting Surgeon to the San Francisco Hospital. With a Foreword by Dean Lewis, M.D., Sc.D., LL.D., F.A.C.S. Second Edition. Entirely Reset. 858 pages with 819 illustrations. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$10.00 net.

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## BOOKS—Continued from Page xix

**CLINICAL BIOCHEMISTRY.** By Abraham Cantarow, M.D., Associate Professor of Medicine, Jefferson Medical College; Biochemist, Jefferson Hospital; and Max Trumper, Ph. D., Clinical Chemist and Toxicologist; formerly in charge of the Laboratories of Biochemistry of the Jefferson Medical College and Hospital. With a foreword by Hobart A. Reimann, M.D., Professor of Medicine, Jefferson Medical College. Second Edition, Revised. 666 pages. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$6.00 net.

\* \* \*

**GONORRHEA IN THE MALE AND FEMALE.** By P. S. Pelouze, M.D., Assistant Professor of Urology, University of Pennsylvania; Consulting Urologist to Delaware County Hospital; Special Consultant to United States Public Health Service; Member of Board of Directors, American Social Hygiene Association and American Neisserian Medical Society. Third Edition, Thoroughly Revised. 489 pages with 144 illustrations. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$6.00 net.

\* \* \*

**A TEXTBOOK OF CLINICAL NEUROLOGY.** By Israel S. Wechsler, M.D., Professor of Clinical Neurology, Columbia University, New York; Neurologist, The Mount Sinai Hospital; Attending Neurologist, Neurological Institute; formerly Attending Neurologist, The Montefiore Hospital, New York. Fourth Edition, Revised. 844 pages with 162 illustrations. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$7.00 net.

**HEALTH OFFICERS' MANUAL.** By J. C. Geiger, M.D., Dr.P.H., Sc.D., LL.D., Director, Department of Public Health, City and County of San Francisco, California. 148 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$1.50 net.

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**ENDOCRINOLOGY IN MODERN PRACTICE.** By William Wolf, M.D., M.S., Ph.D., Endocrinologist to the French Hospital, Attending Endocrinologist, Misericordia Hospital, New York City; Consulting Endocrinologist, New York University Dental School. Second Edition, Completely Revised. 1077 pages with 176 illustrations. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$10.00 net.

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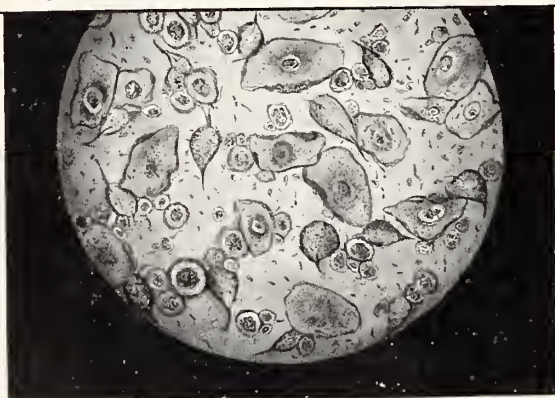
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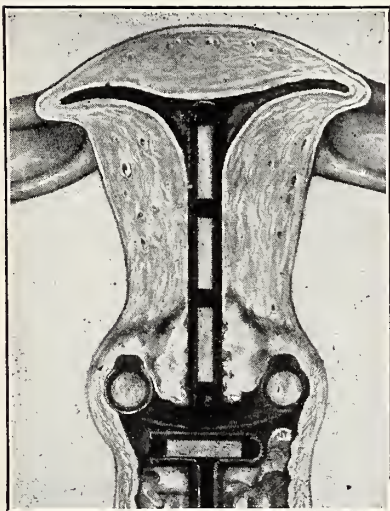
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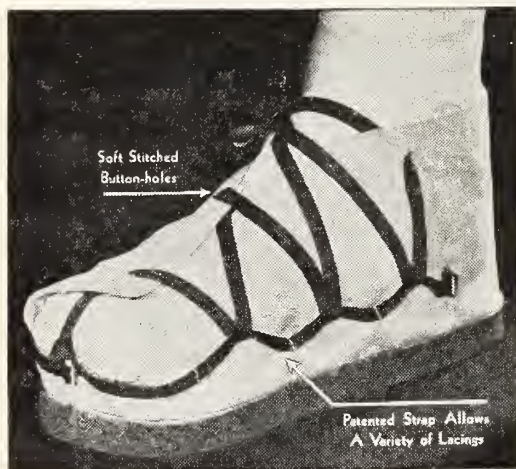
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## ABSTRACTS

### FURTHER PROOF OF SULFAPYRIDINE'S VALUE IN PNEUMONIA

Additional confirmation of the apparent effectiveness of sulfapyridine, a new derivative of sulfanilamide, in carefully controlled treatment of pneumonia is contained in a control study of its use for pneumonia in infancy and childhood, reported in *The Journal of the American Medical Association* for April 15 by six Cincinnati researchers.

Seventy pneumonia patients, half of whom received sulapyridine, were studied by Armine T. Wilson, M.D.; Arthur H. Spreen, M.D.; Merlin L. Cooper, M.D.; Frank E. Stevenson, M.D.; Glenn E. Cullen, Ph.D., and A. Graeme Mitchell, M.D.

They report that "the administration of sulfapyridine apparently shortened the course of the pneumonia by approximately three to four days. The fall in temperature and the clinical recovery were significantly earlier in the sulfapyridine group than in the control group.

"Two of the patients in the sulfapyridine group manifested a course apparently uninfluenced by the drug; two other patients had a relapse, and one had a series of relapses whenever the use of the drug was discontinued. One patient in the control group had a relapse.

"The optimal dosage of sulfapyridine needs further study. Our observations indicate that a dosage which secures a level of free sulfapyridine in the blood of approximately 4 milligrams per hundred cubic centimeters of blood is therapeutically adequate.

"To be sure that an adequate dosage is being given it is necessary to examine the blood frequently; that is, at least daily."

### DECREASED PENDULAR ARM MOVEMENT MAY INDICATE BRAIN DISEASE

A decrease or absence in one arm of the swinging movement in walking may be an early sign of disease of the cerebellum or small brain, Robert Wartenberg, M.D., San Francisco, says in *The Journal of the American Medical Association* for April 15.

Pointing out that such pendular movement has frequently been found reduced or absent in patients with disease of the conelike portion of the lower part of the brain, Dr. Wartenberg declares that this symptom may also indicate involvement of the cerebellum. In such cases the cerebellum is involved by disease on the same side that the arm-swing action is absent.

The importance of this sign lies in the fact that it is easily detectable and can hardly be simulated.

It is the author's definite impression that in disease of the cerebellum the pendular movement is influenced earlier and more pronouncedly than it is in cerebral disorder.

### WARNING!

A Huntington, Indiana, physician has advised that a man representing himself to be a salesman for a Cincinnati instrument house is soliciting physicians, selling office supplies at low cost. He collects partial payment and promises that purchases will be sent within a few days. He sells small items such as syringes, needles, blood pressure bulbs, etc.

Letters sent to the address given by the man have been returned marked "NO SUCH ADDRESS."

The man is about 5 feet 10 inches tall and weighs about 150 pounds; he appears to be about 60 years old.



# CAUSES OF INFANT MORTALITY

Malformation is the most common cause of death of infants at term while a deficiency of oxygen in the blood causes most deaths of those delivered before term, Edith L. Potter, M.D., and Fred L. Adair, M.D., Chicago, declare in *The Journal of the American Medical Association* for April 22. Their conclusions are based on the causes of death of the 733 infants that died, out of the 17,728 delivered at the Chicago Lying-in Hospital between May 1931 and Jan. 1, 1938.

Although only 6.3 per cent of all deliveries at the hospital during this period had not reached term, this group accounted for 59 per cent of the total deaths.

Complications, exclusive of those due to the mechanism of labor, occurred during pregnancy or labor in association with 45.7 per cent of all fetal or neonatal deaths. The most important were toxemia (poisoning due to infection) and hemorrhage. These were found in 33 per cent of the total deaths. Abnormalities of the cord (7 per cent), syphilis (1.6 per cent) and other disease conditions (3.4 per cent) made up the remaining 12 per cent.

# INJECTION RELIEVES PAINFUL HEELS

Thirty-one of thirty-three persons were relieved of painful heels (calcaneal spurs) by a simple injection method which James R. Regan, M.D., Milwaukee, reports in *The Journal of the American Medical Association* for Feb. 4.

For the last five years Dr. Regan has injected one-half cubic centimeter of sodium morrhuate in a 5 per cent solution of benzyl alcohol in those individuals with painful heels who did not respond to the use of well fitting supports, felt pads, shoe correction, etc.

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### ADVERTISERS IN THIS ISSUE

Adams, Arthur (medical books).....	viii
Belgard School, Chicago.....	xxiv
Bobbs-Merrill Co., Indianapolis.....	xxv
Buck, Maynard A., Warren, Ohio.....	xiv
Chicago Tumor Institute.....	xxi
Commercial Announcements.....	xxii
Cook County Graduate School, Chicago.....	xiii
Corn Products, New York.....	3rd cover
Detroit First Aid.....	xxii
Hanger Company, Indianapolis.....	xiv
Hord's Sanitarium, Anchorage, Ky.....	xvi
Hynson, Westcott & Dunning.....	xxiv
Indiana University School of Medicine.....	4th cover
Lederle Laboratories, New York.....	xi
Eli Lilly & Company, Indianapolis.....	xviii
Louisville Neuropathic Sanit., Louisville.....	xiv
Luzier's, Inc., Kansas City, Mo.....	xxxvi
Maples Sanitarium, Saint Marys, Ohio.....	xiv
McMillen Sanitarium, Columbus, Ohio.....	xvi
Mead Johnson & Co., Evansville.....	xii
Medical Protective Co., Wheaton, Ill.....	xix
Milwaukee Sanit., Wauwatosa, Wisc.....	4th cover
Neuronhurst—Fletcher's Sanit., Indianapolis.....	xv
Parke-Davis Company, Detroit.....	iv
Petrolagar Company, Chicago.....	2nd cover
Physicians' Casualty Assoc., Omaha, Neb.....	xix
Physicians' Directory.....	xxvi
Pitman-Moore Co., Indianapolis.....	xvii
Plymouth Sanitarium, Plymouth, Ind.....	xvi
Pogue School, Wheaton, Ill.....	xiv
Radium Emanation Corp., New York.....	xxi
Radium and Radon Corp., Chicago.....	xv
Rogers Memorial Sanit., Oconomowoc, Wisc.....	xvii
Sharp & Dohme, Baltimore.....	v
S. M. A. Corporation, Chicago, Ill.....	ix
South Bend Medical Laboratory.....	xv
Squibb, E. R., and Sons, New York.....	vii
Sterne Memorial Hospital, Indianapolis.....	xv
Stokes Hospital, Louisville, Ky.....	xiii
Upjohn Company, Kalamazoo, Mich.....	iii
Waukesha Springs Sanitarium, Waukesha, Wisc.....	xiv
White-Haines Optical Co., Indianapolis.....	xiii
Wyeth, John & Bro., Philadelphia.....	xx
Zemmer Co., Pittsburgh.....	xxiii



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### HEART DISEASE\*

#### SOME POINTS IN DIAGNOSIS

C. J. CLARK, M.D.

Indianapolis

For many years laymen and physicians have been using a group of vague and meaningless terms in association with heart disease. The physician started using these terms because of a lack of understanding regarding the correct diagnosis of cardiac disability. Now, since the lay public is so thoroughly schooled in the use of the terms, the physicians find it quite easy and time saving, since it requires no explanation, to continue to pronounce the disturbance as a leakage, a strained muscle, a myocarditis, or a tobacco, athletic, or nervous heart. These are all high sounding but mean little in helping the doctor to understand or properly treat a heart patient, and they are often used when there is not a clear understanding of the condition. Often a person with no heart disturbance is made a mental cardiac cripple by such loose terminology. The purpose of this paper is to reiterate what you already know, and again to point out the importance of correct and complete cardiac diagnosis.

One important fact cannot be overemphasized. Be sure that your patient has heart trouble before any diagnosis even smacking of heart flavor is given. It is a serious mistake to cast doubt into someone's mind as to the state of health of his heart when no cardiac disturbance exists. It is equally important to place the proper meaning on various heart diagnoses. Don't be led into agreeing with some other physician's mistake of a grave cardiac diagnosis and simply in this fashion perpetuate a well person's mental heart pathology.

A complete cardiac diagnosis should consist of:

1. Etiological diagnosis.
2. Structural diagnosis.
3. Physiological diagnosis.
4. Functional diagnosis.

Since a discussion of all these in a limited space is impossible, no discussion of the physiological diagnosis will be included.

If proper treatment of the patient is to take place, it must be predicated on correct knowledge of the etiological or causative agent. Removing normal tonsils will not help the patient whose spirochetes need to be eliminated. The simple expedient of fitting the patient into the proper age groups will usually solve this problem. Up to thirty-five or forty years of age, rheumatism is responsible for about ninety-five percent of all heart disease. From one day to eighteen or twenty years of age, a small percentage of congenital heart disease is seen, but careful history and study of the lesion will usually differentiate these. Here the blows are more likely to be nearer the base of the heart, and of a musical quality. Often they are accompanied by thrills, and the patient may show cyanosis, clubbing, polycythemia, or some other congenital defect. The finding of one congenital lesion would naturally presuppose a second, although this is not always true. Between twenty and forty years of age early syphilitic heart disease may be seen, but here the blow is in association with the aortic valve area. The history and Wassermann should be positive. Also, in this age group a certain number of hearts are being punished by a toxic thyroid. These are about three to one in women whose history, palpation of the gland itself, the basal metabolic rate and circulation time are all helpful in a correct solution to the problem. The heart findings are almost entirely the results of increase in rate and so called "cardiac over-drive." Blows are not frequent, and if present are usually soft. Auricular fibrillation may be seen with this as in mitral stenosis, but the paroxysmal type should be considered of thyroid origin until proven otherwise. Occasionally in this group a coronary or hypertensive

\*Presented before the Section on Medicine of The Indiana State Medical Association at the Indianapolis session, October 5, 1938.

heart is found. The hypertensive can be determined by the sphygmomanometer and the fact that the hypertrophy is often more marked than in rheumatics. Usually there is a metallic second sound at the base. Hearts of this group are also affected by all acute infectious processes. These damages are not permanent except in those rare instances where acute bacterial endocarditis results. It is not wise to conclude that, because a blow is heard in an acute infectious disease, permanent heart pathology is present.

The group from thirty-five to fifty-five years of age constitutes the luetic age group. Since the spirochete still maintains its affinity for the aorta, most all of these lesions are basilar. Frequently the murmurs of these lesions are to the left of the sternum and thus lead us to worry about the pulmonary valve. Congenital pulmonary stenosis patients practically never reach this age, and functional blows never produce cardiac hypertrophy as do syphilitic aortic lesions, so that little worry need be experienced. Probably the next greatest number of patients in this group have coronary or hypertensive heart disease. The latter, because of blood pressure findings, are usually easily picked out, but it is often very trying to differentiate coronary and syphilitic heart disease. Too often the syphilitic, because of the impingement of his process on the mouth of the coronary, really has a coronary disturbance. Then, too, both often have a soft systolic at the aortic area. They both may experience dyspnea and pain as their subjective symptoms.

After fifty-five years of age occurs the degenerative group. Sclerosis of the coronary system is the chief factor. Notice here that the term "sclerotic heart disease" is not used. Many feel that this term is vague and misleading. If the ravages of sclerosis of the coronary artery is meant, then these patients should be classed as such, but if symptoms are those of peripheral sclerosis, this should be expressed. Here the syphilitic and hypertensive groups are still seen. Old nodular thyroids become toxic and drive their owner's heart into failure. The weakened myocardium of the person with myxedema may only be discovered by the correct diagnosis of the etiological factor. This heart has distant tones, slow rate, a soft systolic blow, and suggestive x-ray and electrocardiographic findings. It is in this group that the heart of vitamin insufficiency is most often seen. This is often called the "beri beri" heart, and constitutes a reasonable percentage of hearts in older people with failure signs, poor tones, a lack of evidence of any specific cardiac lesion, and poor response to the usual cardiac treatment. Administration of sufficient vitamin B produces definite benefit.

The structural diagnosis is important to proper management and prognosis. It is here only possible to give rather dogmatically some helpful guides toward reaching a correct structural diag-

nosis. Careful observation of the patient is important. The location of the point of maximum impulse not only may determine hypertrophy, but if it is definitely to the left, toward the mid-axillary line, a mitral lesion is suggested, while if it is downward it would suggest an aortic lesion. If hypertrophy is to the left and downward, it would lead us to suspect either coronary or hypertensive disease. Irregularities may be seen by observation of the point of maximum impulse and by feeling of the pulse. By palpation of the chest, a presystolic thrill over the apex may make a clear cut picture of mitral stenosis, while a systolic thrill over the aortic area would mean an aortic stenosis, or rarely an aneurysm. If a systolic thrill is felt over the pulmonary area, pulmonary stenosis must be thought of, but if it occurs between there and the tricuspid area, it will often suggest some other congenital lesion. Occasionally the rub of a pericarditis may be felt in this area. Here, however, the patient would be obviously more ill and auscultation would settle any doubt.

Many systolic blows at the apex are the result of hypertrophy or functional disturbances. The latter are most often soft in character and occur in thyroid diseases, anemias, acute infectious affairs, shock, and so forth. It is important to recognize them for what they are. The apical systolic of hypertrophy is due to widening of the mitral valve ring so that the valve leaflets no longer cover the opening, and although it constitutes a functional mitral insufficiency, no damage of the leaflet is implied as compared to a diagnosis of mitral insufficiency rheumatic. Hence, when speaking of this type of blow, it should always be qualified as functional and its meaning is that of the hypertrophy from which it results. A systolic of rough character associated with more or less hypertrophy and a positive rheumatic history can be assumed to mean rheumatic mitral insufficiency. The addition of a presystolic rumble or blow would mean mitral stenosis. A thrill is usually present with this blow. The mitral stenotic differs from the diastolic of aortic insufficiency as the latter starts with the second sound and no pause is heard between the sound and the blow. In aortic insufficiency, the blow may be heard at the apex by transmission. Blows and thrills at the base of the heart are made more distinct during expiration by having the patient lean forward in the sitting posture. Apical findings are accentuated by having the patient lie on the left side with the left arm under his head. Basilar blows are transmitted toward the apex while apical blows are transmitted to the mid-axillary line. Friction rubs are best heard at the base in the sitting position with a diaphragm type of stethoscope. These may be quite transient and vary from slight scratches, as of new leather, up to sounds of such intensity that they can be heard without a stethoscope. Some lesions have peripheral or extracardial findings which are very helpful in diag-



nosing the cardiac affair. The Corrigan and capillary pulse, a wide pulse pressure, Duroziez's sign, and so forth, of the aortic insufficiency are examples of this, and naturally are to be watched for and utilized.

In coronary disease, history is of great importance. Patients are usually males, but if females are fifty-five years of age or more unless they are diabetics. The story of effort pain in the substernal area with or without radiation to the arms or neck vessels is the rule. This may be fleeting in the anginal group or of longer duration in the true coronary. Most often attacks of occlusion have been preceded by anginal disturbance, often vaguely described as indigestion. There may be the picture of collapse, slight temperature, elevation of the leukocyte count, dyspnea or evidence of congestive failure, depending on the severity of the attack and when the patient was seen. Sudden changes in rate or rhythm, diminution of heart sound, drop in blood pressure, the development of a systolic blow, or friction rub are all suggestive findings.

As stated above, these statements are more than a bit dogmatic and only hit the high spots, but have proven very helpful to us. The judicious use of the x-ray and the electrocardiograph is always advisable, but we must remember that these are only aids in certain cases, are expensive, and that most diagnoses may be reached from history and physical examination, including circulation time and venous pressure.

To make a correct and accurate functional diagnosis is most difficult. We still must rely for a great part on the trial and error method. Too often the trial only serves to point out the error. Many helpful facts are to be considered in attempting to evaluate the functional ability of the heart, and we will cover these briefly.

1. *Age of patient.* It is only reasonable, since our heart's functional ability depends chiefly on our heart's muscle, that a young heart muscle possesses better ability than an old muscle. This explains why rheumatic hearts, by and large, stand surgery well and why they are able to withstand any acute infections and failures.

2. *Presence or absence of infection.* Obviously if the myocardium is laboring under an acute infection, or intoxication, its functional ability will be materially impaired. No surgery of a preventable nature should be allowed during an acute rheumatic bout, or during or immediately following any infectious process (such as pneumonia) in any person, especially a cardiac.

3. *The type of lesion.* Certain heart lesions have long been known to carry on better functionally than others. We have all seen mitral stenosis patients go in and out of failure with great agility, but not so with the patient who has aortic insufficiency. The latter has fewer symptoms of cardiac disability as he goes through life, but once failure appears, he is very apt to

succumb. Most rarely does he survive one or two attacks. The coronary patient is known to be a poor risk at all times, although his ability to stand punishment is at times surprising. This group is most difficult to evaluate.

4. *The history of previous failures and their cause.* Any heart muscle which has experienced one failure would certainly be expected to be more impaired than one whose record was clear. If failure was precipitated by an acute infectious condition or a prolonged physical strain, it would mean a great deal less than one occurring under more or less ideal conditions. Beware of the myocardium which fails under resting conditions.

5. *General conditions affecting the heart's ability.* A severe anemia would be expected to further curtail the ability of the coronary patient whose heart is already suffering from anoxemia. Satisfactory treatment of a toxic thyroid, if early, would be expected to eliminate the patient's heart trouble.

6. *Functional tests.* In the venous pressure and circulation time we have two tests which are of great practical value in aiding the general practitioner in his study of the heart's functional ability as well as in differential diagnosis. A technical discussion of these tests cannot be presented, but they are cheap, highly portable, simple of performance and reading, and have a wide field of applicability. The normal circulation time is from ten to seventeen seconds, and the test is a criteria of the functional ability of the left ventricle by measuring blood velocity.

Circulation time has the following uses:

1. Diagnosis of left heart failure.
2. Differentiation of dyspnea of asthmatic, cerebral and pulmonary origin from myocardial thrombosis.
3. Determine if anginal syndrome is associated with myocardial damage.
4. Differentiation of cardiac and noncardiac edema, ascites and hydrothorax.
5. Helpful in the diagnosis of hyperthyroidism and myxedema.
6. Prognosis and guide to therapy.

Venous pressure is a criteria of congestive heart failure and right ventricular function. The normal is from 4-10 cc. with 20 cc. as a critical level. Venous pressure has the following uses:

1. Elevation of venous pressure precedes clinical heart failure. This is of importance especially in evaluating heart function, i. e., in patients anticipating surgery.
2. In patients with pneumonia and masking of the evidence of heart failure, venous pressure is more important than arterial tension.

We have seen patients dying with pneumonia, with normal blood pressure but with high venous pressure and fast pulse.

3. In the differentiation of cardiac cyanosis and dyspnea and that of asthma, pneumoconiosis, emphysema, and chronic fibrosis.

4. To determine the presence or absence of failure in cerebral vascular accidents.
5. In the prognosis of congestive heart failure.
6. It foretells the progress in therapy and serves as a guide to phlebotomy.
7. It is helpful in differentiating cardiac from non-cardiac hepatomegaly.
8. It is useful in the diagnosis of constricting or compressing lesions of the heart and the determination of the effect of therapy for them.

#### CONCLUSION

All patients with heart disease should have a complete cardiac diagnosis.

The age group method of arriving at an etiological diagnosis is very helpful.

Careful study of history and physical findings with the use of postural examination, circulation time, and venous pressure will help to arrive at the proper structural and functional diagnosis.

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## GERIATRICS

JAMES B. MAPLE, M.D.

Sullivan

With the increase in the average length of life we are faced with the treatment of more and more patients whose attained age places them in the classification of old people. The care of these elderly patients constitutes the practice of geriatrics. Old age is a state of being and is not to be measured in years but rather in the physiologic state of the body. Some are old at fifty-five, some are not old at eighty. Age is relative in many ways, but the wear and tear of elapsed time takes its toll of both the physical and mental life of the patient. Years ago, when the average span of life was short, there were groups of diseases which were seldom seen. As the attained age of the patient increased, the physician began to see more and more diseases that are dependent upon the breakdown of certain physical structures or the hypertrophy of others.

The birth rate of this country shows indications that it will reach a standstill by the year 1950. There is also a growing increase in the span of human life. These two factors will cause an increase in our population of those whose age is sixty years or beyond, bringing about a marked increase in the diseases of senility. Aged persons need to be studied and treated as a distinct entity, differing in many respects from childhood, youth, and middle age. They possess marked differences both in their physical condition and in their mental attitude. The average physician is much too prone to pass by conditions in the aged as due to their age and, therefore, inevitable and to be endured, rather than as conditions which properly understood can very often be relieved and the comfort of the patient greatly increased. It is to be expected that as the aged in our population increase, there will be more and more physicians who will prepare themselves adequately to care for this class of patients even as we have pediatricians for the child.

The mental condition of the aged differs sharply from that of the youth and of the middle aged patient. Men and women differ in their approach to old age. The male is very often resentful of his declining strength and functions. He is also apprehensive of his future. Most of them have an

uncertain financial security, being often dependent upon others, and this adds to their mental unrest. Just what effect old age and other pensions will have upon this is dubious. Some seem satisfied and content with their lot but most of these pensioners show either fear that it will be curtailed or withdrawn, or they are scheming to find ways in which to get their pensions increased. Not a few have their minds filled with bitterness because some others have larger allotments than they. The male is also quite often seriously upset mentally over the decline or loss of his gonadal function. While this is a natural physical phenomena, still a good many worry over it until it assumes the importance of disease.

The woman, upon the other hand, has passed her climacteric quite a few years before she may properly be called aged and has a period of time free from childbearing and the fear of pregnancy in which to enjoy life. She is, in addition, more inclined to accept the tenets of religion and to place more faith in its teachings concerning the future, so she has less apprehension and fear of old age. However, she is much more apt to carry with her into her declining years a stubborn desire not only to boss her own days but still to dictate the lives of her children and her in-laws, all of which adds much to the disturbance of the family peace.

The symptoms, prognosis and treatment of diseases in the aged are markedly colored by the physiologic changes in the body of the patient and this is further tinted by the mental attitude and processes. The practitioner who conscientiously attends these old folks must study the normal changes of senescence.

The hair becomes gray and sparse, the eye may show an arcus senilis, the ears usually show some degree of deafness, there is atrophy of the nasal mucous membrane and diminution of the sense of smell, the tonsils and lymphoid tissue also atrophy. There is atrophy of the thyroid and with this goes a lowering of the basal metabolic rate.

In the chest we find emphysema and decrease of vital capacity. The heart rate is usually slowed to around sixty and the blood pressure which has



risen through the years seems to stop rising at about seventy years and may remain the same or even fall from then on. There are some sclerotic changes in the coronaries and the left heart shows the effects of gradual increase in blood pressure.

In the abdomen we find that the general trend to atrophy affects the stomach with a marked loss of acid secretion which often reaches a state of entire loss of acid. The liver, spleen, pancreas, and adrenals all become reduced in size, due in part to insufficient repair of tissue structure. The kidneys are also reduced in size and show loss of function.

The body as a whole generally loses some weight after sixty. In the bony skeleton we find a number of changes. The long bones suffer an osteoporosis which subjects them to fracture. The cartilages of the various joints atrophy and are infiltrated with calcium deposits. In the spine the intervertebral disks become thinner and the spine not only becomes shortened but also becomes curved, and bends forward. The brain suffers some atrophy with areas of calcification and there are various disturbances of nervous reaction affecting the reflexes as well as the senses of touch, pain and station. Muscle tremor is common.

When we come to consider the diseases of the aged it is well to divide them into those that are physical and those that are mental. Perhaps it is true that the mental changes are predicated upon the physical, but often they are so marked as to require special handling from the mental standpoint. The mental state of the aged is grossly different from what it was in the more active years of life. For him life is through, and he sits and bides his day, fighting as best he may to protect himself against the day of death as long as possible, but when suffering enters the picture he has no hope of days of work or pleasure to stir him to recovery; rather he hopes for the relief of death and gives poor assistance to the efforts of the physician. In seeking to protect himself from an uncertain future he is very apt to do so at the expense of those around him. The selfish intolerance and contrariness of the aged often upsets the entire household and loses for them the love of their family and gets in its stead a begrudging tolerance that longs for the day when death may terminate the burden.

The management of the aged is often made easier by the very fact that time has limited their activities because of feebleness, loss of vision, mental impairment, and arthritis. They also are often unconcerned with the question of earning a livelihood. Children and other dependents are also no longer a question of anxiety. The effort for self preservation is centered in the individual, himself, and the routine of his day is paced so as to protect his failing activities.

The daily routine of the aged should be disturbed as little as possible. In his struggle for self preservation he has learned, little by little,

those things which contribute to his comfort and those which cause him discomfort. Naturally, he has adjusted his life so as to obtain the maximum of comfort for himself. Many of the afflictions that beset him have come gradually with the years and he is in a sense immune to them. They cause little pain and little inconvenience to his customary daily life and habits.

The aged suffer both from diseases that are incident to youth and middle age and in addition those due to the physiological and pathological changes brought about by the continuation of life into those days when there is a general diminution of all body functions. There are, of course, conditions due to infections such as pneumonia, influenza, whooping cough, erysipelas, infected gall bladders, and appendicitis, cystitis, tuberculosis, and others. Of these, bronchopneumonia is most common. It is most often fatal, although recoveries at advanced ages are reported. Osler has called it "the old man's friend." It is mild in its beginning and is often well advanced before being recognized, many of the usual symptoms being absent. Influenza symptoms vary little from those usual in younger patients, except that this disease is often apt to change into bronchopneumonia with very little change in the symptoms and one is liable to find the pneumonia very far advanced when discovered with a corresponding high death rate. Whooping cough is very distressing to the aged and may have a fatal outcome. Erysipelas is not so common today as formerly and runs a course similar to that in younger persons. Gallstones and gall bladder infections are rather common at all ages among the elderly. They do not seem to suffer as much pain as younger folks and stand operations remarkably well. I have seen two, past 80, with ruptured gall bladders operated on with good recoveries. Appendicitis is common in the sixth and seventh decade and even later. It is a bit more difficult to diagnose because of mildness of symptoms but responds to operation with good results. Recrudescences of fibroid tuberculosis are fairly common in the aged. It progresses slowly and may continue for years and many of them die from other causes. The aged are also subject to most of the infectious diseases such as measles, variola, chickenpox, etc. The symptoms are usually the same as at other periods of life but the prognosis is more grave in all of them.

Cancer is one of the common causes of death in the aged. Cancers of the stomach and prostate in the male and of the uterus and breast of the female are the more common types. Other organs and tissues may be the seat of cancerous growth. There are only two pertinent remarks to make here: one is always to remember the increasing liability to malignancy with the increase of years, and the other is that only in early diagnosis is there hope for cure.

One often sees patients in this group who suffer

from inability of the stomach to handle food properly due to the lack of acid secretion from the gastric mucosa. These patients do not die, of course, but they are often so self-centered in their narrow life that they develop a mild psychosis concerning their stomach which sends them from one physician to another much to the worry of them all.

Another troublesome complaint is constipation. This may be due to a combination of difficulties. Loss of teeth may make for improper mastication; often improper foods are used. There is failure of the stomach secretions, atony of the intestinal walls, atrophy of the mucosa of the intestines with loss of secretions, and lack of bile as well as disinclination of the patient to make an effort to help himself. Many aged patients are always inspecting their stools and noting size, color, shape, contents, etc., and they make quite a fuss about it but it is difficult to get them to persist in any sensible method of treatment.

The genito-urinary system also is a source of much trouble in the aged. There is usually a perceptible degree of arteriosclerosis in the kidney which results in impairment of function. Few aged patients die of nephritis because this disease has taken its toll of life long before. However, this arteriosclerotic kidney is often found to produce a terminal uremia in other diseases.

In the female there may be a troublesome cystitis due to malposition of the bladder. The sphincter fails to hold well, there is much pain on urination, and there may be bacteria and pus in the urine. This is often accompanied by prolapse of the uterus and operative correction of this will greatly help if not cure the cystitis.

In the male the chief trouble in the genito-urinary tract comes from the prostate gland. Prostatic hypertrophy begins slowly and usually in the early sixties. As it increases in size it begins to cause a sensation of weight in the rectum, and interferes with the urinary stream, destroying both its force and volume. This increases until we get complete obstruction with retention of urine, cystitis, and renal damage. Remember that about twenty percent of these prostates have a primary malignancy, and we should recognize and correct this condition long before complete obstruction occurs. This is difficult because few of these patients are seen until obstructive symptoms are in evidence.

Heart disease is the most common cause of death in the aged. He has outlived the types of heart disease which have destroyed his friends in middle life and his heart trouble is limited largely to chronic arteriosclerosis, increased blood pressure, damage to the myocardium of the left heart, coronary sclerosis, occlusion, thrombosis, infarction and heart block. Coronary arterial disease is the chief cause of death. Sometimes we see a heart that has grown old and weak with the rest of the body. As the body itself ceases

activity because of advancing age this takes work off such failing hearts and they are able to struggle along for quite some time, but there comes a day of extra strain or some acute illness and the end comes quickly. Such hearts as these often quit peacefully during sleep or while the aged person dozes in his chair.

We should also remember that there is an increasing osteoporosis of the bones which results especially in weakening the neck of the femur so that every fall upon the hip by an aged person should be considered a fracture of the neck of the femur until proved otherwise by careful x-ray examination. Paget's disease, multiple myeloma and bone cysts are also seen occasionally in the aged, often producing pathological fracture.

The generalized arteriosclerosis which attends the aged results in disturbance of the cerebral circulation. There may be thromboses and hemorrhages with resulting damage depending upon the location and extent of involvement. There is poor blood supply to the brain tissue, resulting in psychoses. Many of these are so minor as merely to cause social difficulties and complications of family conduct. At times there may be temporary mental confusion and delusions. There are many that become permanent so that the victim becomes mentally incompetent to care for himself.

As people live on into old age there is an ever increasing number of those who have diabetes mellitus. The use of insulin has prolonged their lives so that those who formerly died earlier now reach advanced ages before some catastrophe overtakes them. They require constant supervision but can be made to live to advanced ages. This also applies to those afflicted with primary anemia. Since we have had liver extract for parenteral use in concentration sufficient to care for them, with doses given at intervals of twice a month or longer, these patients may now be expected to live until some other affliction befalls them.

As these patients grow older they are beset with a multitude of minor troubles which while they are not fatal are nevertheless a source of much annoyance to them. These include general pruritis, pruritis ani and pruritis vulvae, a great number of skin lesions which seem to be dependent more or less on a failure of skin nutrition and a drying up of its secretions, varicose veins, offensive body odors from degeneration of fatty acids, dribbling urine, and insomnia.

In considering treatment for these elderly patients remember that they do surprisingly well as surgical risks and surprisingly poor in their reactions to drugs. It is remarkable how these old folks will undergo operative procedures and recover, and it is disappointing how often they fail to respond to medical treatment. Bed is a poor place for them. Let them be up as much as possible. In fracture work, remove splints and appliances early.



Exercise beyond what they are used to daily is foolish and harmful. If they are used to five hours of sleep, do not try to make them sleep more. Stimulants should always be mild and sedatives given with care, barbiturates especially. Morphine should be given in small doses and sparingly. In your aged diabetics, don't worry if sugar shows up every once in a while; give more

insulin rather than a more stringent diet. Careful nursing and maintenance of his customary habits are very essential. Remember, the treatment satisfactory in the youth and the middle aged cannot be used in the elderly without modification. It must meet the changes in the human body that have come with time. Properly cared for, the aged often make remarkable recoveries.

## NURSING CARE OF THE AGED AND THE CHRONICALLY ILL PATIENT

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Caring for the aged and the chronically ill patient in the home or in the hospital offers many problems. Among them is that of making the patient comfortable. The following program of nursing care may be used to assist in accomplishing that end.

Some of these nursing measures may seem trivial to a well individual, but they are major factors related to the well-being of the chronically ill or the aged person.

### BED REQUIREMENTS

A good bed, not a cot or davenport, is essential. If bed care is to be given, a single metal bed about twenty-four inches from the floor is most desirable. In order to elevate the low bed in a home, four large wooden blocks with grooves in the top to receive the rollers, may be used.

A good mattress is also necessary if other comfort measures are to be effective. The mattress should be protected by a piece of rubber sheeting about three feet wide and four feet long placed crosswise over the middle of the bed. In the home where such sheeting is not available, oil cloth or several thicknesses of newspapers may be substituted. Tape stitched to the corners and tied to the bed posts will help to hold the sheet in place, or heavy material sewed across the ends will lengthen it so that it can be tucked under the mattress. The muslin sheet placed over the rubber protector can be changed whenever necessary without remaking the entire bed.

Pillows may need similar protection.

### CARE OF THE SKIN

Special care of the skin is of utmost importance.

A daily cleansing bath is necessary to assist in keeping up the tone of the skin. Sufficient soap must be used to cleanse well, and enough water to rinse thoroughly. Special attention should be given to the umbilicus and nails, and to the axillary and pubic regions. If the breasts and abdomen are pendulous, the folds should be cleansed to prevent irritation from perspiration.

The back should be washed frequently and rubbing alcohol applied to help toughen the skin. Massaging is beneficial, too, if it is done thoroughly, with long, firm even strokes. Particular attention should be given to the coccygeal and scapular regions.

It is refreshing to the patient to have his face and hands washed before each meal as well as at other times during the day.

Mineral oil may be applied to the feet and toes if the skin becomes dry and hard.

If it is necessary to apply hot water bottles to the body, not only should they be covered, but it is advisable to use a bath thermometer to test the temperature of the water to make certain that it does not exceed 120 degrees F.

### CARE OF THE MOUTH, TEETH, LIPS, AND HAIR

Cleanliness of the mouth and nose adds greatly to the patient's comfort.

1. The teeth should be brushed after each meal, and a dentifrice used once or twice a day. It may be necessary for the nurse to use cotton applicators to cleanse the mouth and teeth if the patient is unable to use a brush.

2. In case the patient keeps his mouth open, the tongue and lips may be kept moistened with mineral oil, or with lemon juice mixed with glycerine.

3. Secretions from the nose and mouth should be collected in paper handkerchiefs, discarded into a paper bag, and burned.

The hair must be combed at least once a day and proper attention given to the back of the head. If the hair is long, it should be braided at each side of the head so that the patient will not have to rest on a braid or roll of hair. Oily hair may be washed weekly, but if it is inclined to be dry, a shampoo every two weeks is sufficient.

### PRESSURE AREAS AND THEIR PREVENTION

The best of nursing care is required to prevent pressure areas, or decubitus. It must be remembered, however, that this can be prevented by proper nursing care of the patient. The nurse must be on the alert to discover the beginning of such a condition. This is particularly true in

\* Editor's Note: Realizing the importance of nursing care in the aged, the editor requested the Indiana State Nurses Association to have one of its members write such an article, and Miss Allen undertook the task.

the case of poorly nourished, emaciated, or elderly patients with long exhausting illnesses, poor circulation, or paralysis.

The cause of pressure area is impaired nutrition of the part, which, if allowed to continue, will result in the death of tissue. Some of the conditions which are contributing factors are:

1. Constant pressure
2. Edema
3. Friction
4. Heat
5. Moisture
6. Wrinkles in the bed clothing or patient's clothing
7. Crumbs in the bed.

The areas most commonly involved are those located on the posterior aspects of the body, where there is only a small amount of subcutaneous tissue between the skin and the blood vessels. Those areas are:

1. Scapular region
2. Sacro-coccygeal region
3. Occipital region
4. Back of the ears
5. Hips
6. Buttocks
7. Heels
8. Ankles.

The first symptom of a pressure area is a reddened spot which persists after massage. This redness is followed by a purplish, mottled appearance. If a reddened area has developed, the nurse should treat it by massaging around and away from the area, and not directly over it. If there is a break in the skin, it should be exposed to the air as much as possible and be covered with a sterile dressing at other times. The doctor should name the medication to be used. When such a condition develops, the position of the patient should be changed frequently and his skin given more than usual care.

The way to prevent pressure areas is to prevent the cause, and as previously stated, this can be accomplished only by thorough nursing care. Since pressure is a contributing factor, it is necessary to devise means of relieving long continued pressure from certain parts of the body.

One of the best methods is frequent turning of the patient. This should be done every two or three hours during the day and two or three times during the night. When the patient is turned, the opportunity is afforded for special care to the back.

The rubber ring or air cushion may be used under the buttocks, or small pillows may be placed under each hip to prevent pressure on the coccygeal region.

Another method of relieving pressure is by the use of a cotton doughnut. The doughnut is a small ring, about 1½ inches high, made of cotton and wrapped with bandage or stockinette. A child's stocking may be used in the home for this purpose. These rings may be placed under the elbows and

heels to prevent them from resting on the bed, or under the malleolus when the patient is on his side.

The weight of the covers can be removed from the toes by a cradle, or a firm pillow or foot board slipped in at the foot of the mattress. The covers should be of light weight but of sufficient warmth.

A firm pillow under the lower part of the legs may be used to keep weight off the heels.

Two pillows placed in a V with the point toward the head will aid in relieving pressure from the shoulder blades.

Pressure from the bed pan may be avoided by placing a small pillow under the back so that the body is raised to the level of the pan. A pad placed over the upper end of the pan will make the patient more comfortable.

Since a decubitus may also be caused from heat or moisture, the gown and linen must be changed as often as necessary to keep the patient dry and cool. If the patient is incontinent, the bed may be protected by the use of cellu-cotton and gauze pads under the hips, in addition to the rubber sheeting; catheterization and diapers are sometimes necessary.

It is very important to keep the lower bedding free from wrinkles and crumbs.

#### POSITIONS AND DEVICES FOR THE BED PATIENT

If the patient is unable to change his position by himself, he frequently suffers discomfort. This can be avoided by frequent changes of position. The patient should be moved every two to three hours. Every change should be effected with the least possible exertion for the patient. Changes, however slight, help to relieve constant pressure, prevent hypostatic pneumonia, improve circulation, and relieve muscle strain.

Lying on the right side, with the lower limbs relaxed and flexed, is a comfortable position for most people. A pillow may be placed firmly against the back, and a small pad or pillow between the knees. If it is difficult for the patient to remain on his side, the following procedure may assist him to do so: Fold a sheet diagonally until it is about twelve inches wide; place the sheet crosswise under the patient's back; turn the patient to his side and bring the distal end of the sheet over the patient and tie the ends together at the side of the bed.

If the patient is compelled to lie on his back, the following methods may be useful. The head of the bed may be elevated, or the patient may be elevated with pillows, including a small pillow under the small of the back. Pillows used about the elevated patient, however, will soon slip out of place unless secured in some manner. Those under the head may be held in position by two loops of bandage large enough to encircle the pillow and tie to the springs at the head of the bed. The loops should come about six inches from the ends of the pillow. The pillows placed vertically are maintained by two strips of bandage which are tied horizontally across the bed. When the head



is elevated there is a tendency for the patient to slip down in bed. This movement may be prevented by the following measures:

a. Tie a bandage around a pillow, making a firm roll. Pass a long strip of bandage through the roll. Place the roll below the pelvis and tie the ends of the bandage to the bed frame.

b. Tie a bandage around a pillow making a firm roll. Fold a sheet diagonally and roll the pillow beginning at one corner of the sheet. Flex the patient's knees and slip the roll under his knees. Fasten the loose corners of the sheet to the head of the bed.

c. Fold a sheet diagonally, 10 to 12 inches wide. Slip it below the patient's hips and bring the ends to each side of the bed and tie them to the springs toward head of the bed.

A change in position which may afford much comfort for the patient, especially the cardiac, may be provided by the use of a table across the bed upon which the patient may lean. The table should be well padded with pillows.

Pillows, a block of wood protected by a pad, sandbags, or any resistant object at the foot of the bed offers opportunity for muscle adjustment of the lower extremities, and may help in preventing fatigue.

Small pillows placed under the arms prevent a strain on the shoulders and also pressure from the arms lying against the trunk.

If a patient is paralyzed, support is needed to preserve the normal curves and to prevent strain on the paralyzed parts.

A piece of cord or other material may be tied to the foot of the bed for the patient to use in pulling himself to a more upright position.

An overhead traction with a trapeze swing, such as that used for fracture cases, is often desirable for a large person to use in adjusting his position, or to use when adequate help is not available for lifting the patient.

Transferring him to another bed or turning or changing the mattress may afford the chronically ill patient considerable relief.

#### DIETARY AND ELIMINATION

The food for the chronically ill must be varied, the appetite stimulated, and the tray served attractively. It is often desirable to serve small amounts of food frequently instead of larger amounts at the regular hours. In either instance the servings should be small and the dishes should be colorful and varied from time to time. The linen must be fresh. A flower on the tray will often contribute toward the patient's enjoyment of the meal.

If the patient can feed himself, his pillows should be arranged for his comfort and his head should be well supported. It is often advisable to tell the patient what is on the tray; this is especially true when serving an elderly person.

A water service consisting of a covered pitcher containing fresh water, a glass, and a tray should be kept on the bedside table. If the patient is able,

he may enjoy serving himself. It is best to confer with the physician as to the amount of fluids needed, because in certain conditions, such as cardiac, the fluids may be restricted.

In the majority of cases the patient should have a regular bowel movement daily. He should be placed on the pan at routine hours each day in order to establish the habit of regular evacuation. Failure to do this is likely to encourage constipation, which may already be threatening because of the patient's inactivity. The bladder should likewise be emptied routinely to avoid the possibility of overdistention or of too frequent voidings.

#### REST, SLEEP AND EXERCISE

It is important that the chronically ill patient have periods of rest during the day. He should be encouraged to observe a short period of rest after lunch, and to retire early at night unless he has a tendency to awaken early. In such cases sleep may be delayed.

A daily planned program for the patient will make him feel that every item on the program is necessary for his comfort and recovery, and he will soon look forward to the various routines. Such a program would include the daily morning bath and toilet, a certain amount of time for diversion and rest, and a definite routine in preparation for the meals, the rest hour, and the period preceding retiring at night.

While rest and sleep are important during illness, a certain amount of exercise is also important and should be a part of the day's routine. The exercise may vary in intensity from massage to a short motor ride, depending upon the condition of the patient. Massage should be used only by order of the attending physician. Games or movements which exercise the body as a whole or certain parts may be used. The patient should be encouraged to move about freely in bed if his condition permits.

A back scratcher given to an almost helpless patient may enable him to allay many of his minor discomforts and may at the same time encourage activity.

#### CONTROL OF ENVIRONMENT

The physical environment of the patient is of utmost importance.

The room should be quiet, sunny, and of an even temperature of 66-70 degrees F. A humidity of 40-60% is preferable to keep the respiratory mucous membranes in a healthy condition. Drafts should be avoided but the air should be kept fresh. Indirect ventilation is helpful.

It is essential that the room be kept tidy and clean.

The furniture in the room, including the bed, should be rearranged frequently. A change in the color of the draperies and bedspread will offer variety, as will the view from one window and then another.

A small table should stand beside the bed and within the patient's reach, where he can keep small personal belongings such as nail file, books, or

pencil and paper, that he may need many times a day. A lamp on the table, the paper bag for waste material, a box for letters and cards will be very convenient.

The patient should be provided with a bell or some means of signaling for the nurse or family.

Visitors and visiting hours should be provided for according to the patient's condition.

Whispering in or near the room should be avoided because it is exceedingly annoying, excites curiosity and, therefore, may prove harmful to the patient.

#### MENTAL ATMOSPHERE

The mental state of the patient may very definitely affect the functioning of the body. For this reason, the nurse should use mental therapy regardless of the organic condition from which the patient is suffering. It must be adapted, however, to the particular patient, his condition, and his needs.

His attention should be diverted so that he does

not become preoccupied with his own thoughts and illness. The nurse should endeavor to discover the bent, hobby, or talent of the patient and encourage his continued interest. If no such trend is evident, she can do much toward arousing his interest in something. A few helpful occupations are sewing, reading, listening to the radio, knitting, doing patch work, stenciling, crocheting, embroidering, doing string or basket work, weaving, engaging in crepe paper work, drawing, wood carving, china painting, designing, leather tooling, and stamp collecting.

#### CONCLUSION

It must be constantly kept in mind that no complaint or request is too small to receive prompt consideration. The wish to talk with the doctor, the minister or a neighbor is not to be ignored. A desire or demand seemingly trivial to a well individual is not to be denied without investigation when it is made by the patient long harried by ill health.

## DIAGNOSIS AND TREATMENT OF MENSTRUAL IRREGULARITIES\*

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The problem of menstruation, and I say "problem" advisedly rather than "subject" of menstruation, has been one of concern since long before the time of Hippocrates.

The earliest concept of menstruation that we have a record of was that the menstrual discharge enabled the woman's body to rid itself of harmful and poisonous substances.

The Greeks called it "katharsis," no doubt basing it on the idea that the monthly discharge represents a periodic purging of impurities from the woman's blood.

There is much folklore even today regarding the phenomenon of menstruation.<sup>1</sup> This is not remarkable in the light of the fact that it was not until the year 1863 that it was definitely linked up with the ovary. A German investigator named Pfeuger offered the explanation that the ripening of the follicles or egg-sacs in the ovaries set up nervous influences which produced a filling up of the blood vessels of the pelvis and thereby caused menstruation. This concept held until about the year 1896 when other German investigators proved that not only was the cycle of menstruation abolished by the removal of the ovaries but their implantation elsewhere in the body reestablished the menstrual cycle, thereby proving that the mechanism of producing menstruation was not by the nervous route but by some blood borne agent, thus giving rise to the hormone theory of menstruation. Since that time a vast amount of investigation in the physiology

of menstruation has given us many valuable facts upon which to base our line of reasoning. In fact, more knowledge in this important field has accumulated in the present one-third of a century than in all of the preceding centuries.

Menstrual irregularities may take one of two forms, in either of which there may be many variations<sup>2</sup>: first, menorrhagia, or excessive menstruation; second, metrorrhagia, or independent bleeding at irregular intervals. They may be further separated into two main groups according to etiology.<sup>3</sup> In the first group one finds organic lesions, such as fibroids, cervical and uterine polyps, cancer, abortions, ectopics, endometrial transplants, etc. In the second group are found the functional disturbances of menstrual interval and flow. While the latter group of disorders rarely if ever threatens life, it is quite different with the general and local lesions and some of them, unless diagnosed and treated promptly and correctly, will terminate disastrously. The symptoms of both of these are much the same, and it is important to make a differential diagnosis. It is only after a thorough and careful examination has failed to reveal any general or local disease that uterine bleeding may safely be regarded as functional.

#### DIAGNOSIS

Diagnosis of irregular bleeding in the group of organic lesions, by and large, presents a much less

\* Presented before the Gibson County Medical Society at Princeton, April 10, 1939.

<sup>1</sup> Novak, Emil: *The Woman asks the Doctor*. The Williams & Wilkins Co.

<sup>2</sup> Anspatch, Brooke M.: *Causes and Treatment of Uterine Bleeding*. *Delaware State M. J.* 10: 189-194 (September) 1938.

<sup>3</sup> Burch, John C.: *The Menstrual Problem*. *Southern M. J.* 31: 80-83 (January) 1938.



difficult problem than in the second group, with certain exceptions.<sup>4</sup> Early diagnosis by physical examination enhances treatment in the majority of these cases, since they are chiefly treated by surgical removal or by irradiation. It is not within the scope of this paper to discuss treatment in detail. Suffice it to say that unless the lesion is organic, and even sometimes when it is so, it is associated with functional disorders as well. Surgery alone, no matter how brilliant, still leaves the glandular condition present.

In the second group are found the so-called functional disorders of menstruation, that is, disturbance of interval and flow, which according to Burch<sup>3</sup> and others are a result of disturbances of ovarian function, resulting in a variety of symptoms such as amenorrhea, menorrhagia, and metrorrhagia. Novak states that the common characteristic of all cases of functional bleeding is absence of the secretory changes of the endometrium, which so far as is known can be produced only by progesterone. Burch further separates these disorders into three degrees depending upon the severity of the disturbance of the ovarian function. "In the first or mildest degree, the ovary produces or secretes both estrin and progestin in slightly abnormal fashion. In disturbances of the second degree the ovary produces no progestin and normal or abnormal amounts of estrin. In the third degree there is no progestin and a diminution of estrin. The degree of ovarian disturbance is readily ascertained from an examination of the endometrium at or near the onset of bleeding."

There may be all variations in each degree but in general one expects to find the mild and moderate disturbance in the first degree, severe bleeding in the second degree, and amenorrhea in the third degree. Ovarian disturbances may be either primary or secondary. The most frequent causes of the former are infantilism, infection, surgical operation, tumors, or vascular disturbance. The secondary ovarian failure may be due to constitutional diseases elsewhere in the body affecting the ovary, such as malnutrition, focal infections, anemias, tuberculosis, diabetes and so on. Altered function of the other endocrine glands, particularly the thyroid and the pituitary, frequently disturbs the function of the ovary and thereby causes various menstrual disturbances. The impaired function of the ovary, whether primary or secondary, may produce identical symptoms, but the success of therapy depends wholly upon an accurate diagnosis of the primary lesion. Such a diagnosis which is the first and most important step in treatment of amenorrhea, menorrhagia and metrorrhagia is difficult in many cases without a careful and painstaking history and complete physical examination, plus routine and other pertinent laboratory procedures.

The history should include some family history especially regarding the menstrual histories of the

females.<sup>4</sup> Possibly their degree of fertility would be of some significance if the patient is one of low fertility. The past history should be obtained in regard to acute or chronic illnesses, types of operations if any, and their results. The menstrual history is of prime importance, and this must be obtained in many instances by cross-examining the patient. Many studies upon large series of patients in this country have appeared in the literature recently. Universally they indicate that the perfectly normal cycle does not exist, at least in American women. Laboratory procedures should include the patient's weight, complete blood count and urinalysis, Wassermann, basal metabolism, and sugar tolerance tests.

Endometrial or cervical biopsies taken close to the time of the onset of bleeding are very helpful in the determination of the degree of ovarian failure.

From careful consideration of data obtained in the foregoing study, one should be able to determine the endocrine status of the patient with a fair degree of accuracy.

#### TREATMENT

Assuming that diagnosis has been made and we consider the second principle in treatment, namely the use of specific endocrine products, we are confronted at once with the problem of choosing a potent and uniform substance to use. Unfortunately many of the recommendations of pharmaceutical houses are not made on the basis of an accurate diagnosis, consequently there are many failures with one product whereas the use of the appropriate substance would have been successful.

In organotherapy, thyroid extract is the most popular and the most uniform in its results. In many instances it is of value when the basal metabolism rate is well within normal limits, and one should be governed in these cases by the clinical response to the drug. It is preferable to use a product of uniform potency and to start with one-half grain U. S. P. desiccated thyroid daily, increasing the dose to a maintenance dose within two weeks. The administration of the desiccated thyroid at night is preferable.

If there is evidence of excessive activity of the thyroid gland, iodine may be effective.

Should there be no improvement in the condition, one may consider the anterior pituitary like luteinizing hormones, follutein, antuitrin S, antophysin, or even progesterone. Novak<sup>5</sup> considers the pregnancy urine substances more frequently successful than progesterone because he believes that there is some principle in pregnancy urine more frequently hemostatic in such cases than is the pure progesterone. He further states that in functional bleeding of the periodic type, there is no value in interim treatment of this sort. When bleeding occurs, or several days after it starts, if it is not profuse, daily injections may be begun. If the pregnancy urine (A.P.L.) substances are

<sup>4</sup> Meaker, S. R.: Human Sterility. Williams & Wilkins Co.

<sup>5</sup> Novak, Emil: *Texas State M. J.* 34: 263-268 (August) 1938.

chosen, daily injections of 200 units of antuitrin S, follutein or antophysin are given intramuscularly. If progesterone is used, 1 rabbit unit of proluton, lipolutin, or progestin is given. Response is sometimes prompt; usually two to five injections are required. If bleeding is profuse, the two may be combined or alternated.

There is a vast amount of literature at the present time on the use of the active male sex hormone preparation (testosterone propionate) in functional bleeding and in the menopause. It supposedly has a strongly inhibitory effect on the maturation of follicles and the occurrence of estrus in animals.

Beclere,<sup>6</sup> a French investigator, believes that if there is an excess stimulation of the anterior pituitary gland, hormonal treatment should be directed toward suppression of the pituitary, and that this may be accomplished in woman without stimulating the ovaries by administration of the male hormone.

Several French and English investigators have reported favorable results with this hormone in certain cases of uterine hemorrhage in young girls, in bleeding of the premenopause period and in cases of uterine fibroid.

Greenhill<sup>7</sup> reports having used it in such cases, also in dysmenorrhea with alleviation of symptoms, which was accomplished usually by suppressing menstruation. Huge doses were necessary (500-800 mg.). He encountered untoward symptoms such as acne, hirsutism, gain in weight, and voice changes in some cases. He, therefore, condemns its use injudiciously until a product can be made which will have all its beneficial effects without any of its undesirable side-effects.

Rubinstein<sup>8</sup> reports a case who for the past seven years had had irregular menses lasting from 10 to 12 days, with staining almost continuously. Following a thorough examination a diagnosis was made of (1) hypopituitarism with functional bleeding, (2) secondary hypothyroidism, and (3) chronic constipation.

Treatment with testosterone propionate was as follows: 5 mg. subcutaneously. Four days later a similar dose. Two days later the bleeding stopped. Injections were given two times weekly for three weeks but were discontinued during the fourth week. A month later she began to menstruate. The period lasted five days. There had been no staining. Treatment was resumed two days after cessation of flow. Two injections weekly for one week and one injection weekly for two weeks were given. This regimen was continued with success. The exact mechanism of how this hormone works is not understood. It, however, is chemically similar to progesterone which retards follicular maturation and inhibits ovulation.

There are many favorable reports from leading gynecologists in regard to the use of snake venom<sup>9</sup> in the treatment of uterine bleeding. Moccasin venom is the substance used. An outline of treatment is about as follows: 0.4 cc. of 1:3,000 dil. subcutaneously, increase by 0.2 cc. at intervals of 3 days for the two following doses. After 0.8 cc. is reached, there may be swelling to the elbow. If so, desensitization should be done starting on 0.05 cc. increasing to 0.1 cc. then 0.2 cc. The next doses are increased by 0.3 cc. until 1 cc. can be given 2 times a week. There is usually definite improvement in 1 to 2 months.

The average duration of treatment is about 8 months. With definite improvement the number of injections could be reduced to one instead of two a week.

In the more obstinate cases where bleeding has become a menace to health and one is compelled to resort to surgery, the surgery should be limited at first to curettage. If it is followed by relief, which is usual, one may continue with substitution therapy also, in the hope that with a temporary relief from the curettement success may be obtained with endocrine therapy from this point on. Failing in this, a second curettement is justifiable if temporary relief followed the first, because Novak<sup>5</sup> feels that there is a tendency to a readjustment of the endocrine balance and an establishment or a reestablishment of ovulation sooner or later if general measures are used. However, the application of all conservative measures may fail and more radical measures must be resorted to. One has a choice of intrauterine radiation or hysterectomy. Circumstances will govern one's decision in many cases: the age of the patient, the possibility of preserving a small amount of normal ovarian tissue, etc. Intrauterine radiation should be limited to 150 mg.-hr. in the young patients, repeating if necessary. If hysterectomy is indicated, the patient's general condition should be carefully considered before subjecting her to a major operation. Toward the menopause one should be mindful of the increasing incidence of malignancies, and establish a diagnosis more often by uterine curettage. Having ruled out malignancy, one is justified in giving intrauterine radiation, using radium, 1,200-1,500 mg.-hr.

Weintraub<sup>10</sup> reports gratifying results with this method and recommends its trial in all premenopausal cases before resorting to hysterectomy.

<sup>9</sup> Watkins, C. H.: Experience with Snake Venom in Menorrhagia, *Proc. Staff Meeting, Mayo Clinic* 11: 261, (April 22) 1936.

<sup>10</sup> Weintraub, Fredrick: *Am. Jour. Obs. & Gyn.* 36: 476-481 (September) 1938.

<sup>6</sup> Yearbook, Obstetrics & Gynecology, 1938, p. 473.

<sup>7</sup> Greenhill, J. P.: Testosterone Propionate (Editor's note) Yearbook, Obstetrics & Gynecology, 1938.

<sup>8</sup> Rubinstein, H. S. Testosterone Propionate in the Treatment of Functional Uterine Bleeding, *Journal A.M.A.* 112: 537-538 (February 11) 1939.

PLAN TO BE IN FORT WAYNE  
OCTOBER 10, 11, and 12  
for the annual session of  
THE INDIANA STATE MEDICAL  
ASSOCIATION  
See page 430



## AGRANULOCYTOSIS FOLLOWING TREATMENT OF BACTERIAL INFECTIONS WITH SULFAPYRIDINE

### CASE REPORT WITH REVIEW OF THE LITERATURE

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Articles in newspapers and popular periodicals have succeeded in surrounding sulfapyridine (2-sulfanilyl aminopyridine) with an aura of romance for the lay mind. The remarkable therapeutic properties of this drug and the enthusiasm with which it has been used experimentally have tended to present it in a similar light to the medical profession. The following case is reported as an example of the most dangerous toxic effect of sulfapyridine. It may be of particular interest since the drug has been placed on the open market within the past few months and soon will be generally available.

#### REPORT OF CASE

The patient, a white man, 44 years old, was first seen in his home on January 30, 1939. He complained of sore throat, chills, and slight cough. The throat had been sore for two days and he had suffered several moderately severe chills in the previous twelve hours. He had had three loose stools on the preceding day. Cough was slight and no sputum was raised.

Physical examination revealed the following conditions: temperature 102.4 F., pulse 116, blood pressure 120/80; pharyngeal mucosa swollen and inflamed; no lymph node enlargements in the neck; chest findings normal except for a few rales over the trachea and primary bronchi; heart sounds normal; abdomen moderately distended.

During the next two days the temperature varied between 101 F. and 104 F., the pulse rate going as high as 128. A smear from the throat on February 1 showed streptococci in short chains predominating. On February 2, temperature was 103.8 F. and moderate dullness of the percussion note was present over the lower right chest posteriorly. Breath sounds were suppressed and there were medium fine rales over the same area. Cough was distressing.

The patient was hospitalized and roentgenogram of the chest revealed signs of consolidation about the hilum and in the middle and lower lobes of the right lung, with no extension to the periphery of the lung. White blood count on February 2 was 10,000 with 85% neutrophilic polymorphonuclears, and 15% lymphocytes. The urine contained a considerable amount of albumin and some hyaline casts. Repeated examination of the sputum showed no pneumococcus, but streptococcus and bacilli were found in large numbers. Sputum containing much bloody mucus was expectorated several times on this and the following day.

Sulfapyridine was given in an initial dose of 2 gm. and repeated in 1 gm. doses every four hours.

The temperature curve showed the abrupt fall which seems to be characteristic following administration of this drug and had reached normal within 24 hours. The dose was decreased to 1 gm. sulfapyridine every 8 hours, but the temperature rose to 102.8 very rapidly and the earlier dosage was resumed, followed by a fall of temperature and pulse to normal within 48 hours. Sodium bicarbonate in doses twice the amount of sulfapyridine was given as the patient became acidotic and showed sugar and ketone bodies in the urine on February 4. Dosage of sulfapyridine was continued at 1.3 gm. twice daily after temperature had returned to normal and the condition of the patient was regarded as very favorable.

On February 11 a peculiar purplish maculo-papular rash was noted in the skin of the neck and trunk. The dose of sulfapyridine was reduced to 0.66 gm. twice daily and the rash disappeared within 48 hours. When the rash was at its height, temperature and pulse were normal, white blood count was 10,400 with 82% neutrophilic polymorphonuclears and 18% lymphocytes. The blood concentration of sulfapyridine on February 12 was 1 mg. per cent. The general condition of patient remained good. On the following day, however, he began to complain of sore throat and blew some thick yellow pus from the nose. The pharyngeal mucosa was found to be inflamed, the temperature rose to 102, and the patient was restless and irritable. It was felt this was a recrudescence of his infection and the dosage of sulfapyridine was again increased to 0.66 gm. every 4 hours. The temperature curve fluctuated between 98 and 102 and became normal on February 16. In the face of such a severe and persistent infection it was felt that a maintenance dose of sulfapyridine should be given until the patient was definitely convalescent. Unexpected difficulty had arisen in obtaining determination of blood concentration of sulfapyridine, but inasmuch as the drug had been started and had given satisfactory results, it was determined to continue with the very moderate dosage of 2.6 gm. daily. Red blood cell count was 3.9 million with 77 per cent hemoglobin on February 19. A roentgenogram of the chest on February 20 showed the lungs to be clear except for a very small residue of consolidation in the lower lobe of the right lung.

On February 22, after four good days, the patient complained of sore throat, became prostrated and had a rise of temperature to 103 F. The pharyngeal mucosa was edematous and had an unusual gray color. There was a white patch

about 2 cm. in length and 0.2 cm. in width on the mucosa of the posterior pharynx. Sulfapyridine medication was stopped immediately. A white blood count showed a total of 1200 cells, all lymphocytes. Administration of sodium pentnucleotide in doses of 10 cc. every six hours was begun. The accompanying table shows the main points with reference to blood counts and treatment.

The sore throat disappeared gradually and several of the anterior cervical lymph nodes became enlarged as the white blood count increased. The patient was irrational for two or three days after the temperature dropped from 104.8 F. on February 27. The course was uneventful for the following few days except for a low grade fever and the patient was discharged from the hospital on March 10. The total amount of sulfapyridine administered was 52.3 gm. in 21 days.

The subsequent course was complicated by recurrence of sore throat on March 11, accompanied by salivation and reappearance of enlarged lymph nodes in the left side of the neck. The pharynx was inflamed and swollen on the left side and the patient's voice was husky. An otolaryngological consultant found edema of the hypopharynx which gradually involved the epiglottis and soft tissues surrounding the larynx. The patient was readmitted to the hospital on March 14. He continued to have a low grade fever and the white blood count ranged up to 22,000 with a normal differential count.

This sequellum was treated successfully by ice packs to the neck and frequent irrigation of the pharynx with a cold saline solution. The patient was discharged on March 26 as convalescent and has continued to gain. This latter development was not definitely diagnosed, but was thought to be due to a recurrence of the throat infection with an atypical response of the pharyngeal mucosa such as may occur following agranulocytic angina.

#### REVIEW OF REPORTED CASES: COMMENT

A number of reports of agranulocytosis following sulfanilamide medication have been published. Shecket and Price<sup>1</sup> collected nine such cases from the medical literature of England and America

and added a case of their own. All these were fatal cases.

Some of the earlier clinical and pharmacological investigators of sulfapyridine were at least hopeful if not convinced that it would be less toxic in all respects than sulfanilamide and its other related compounds. Wien<sup>2</sup> tested the toxicity of the drug on animals and concluded that it had, for rats and mice, about one-fourth the toxicity of sulfanilamide. He found, in the course of this investigation, no effect upon the white cell count of the animals used. Evans and Gaisford<sup>3</sup> in the treatment of one hundred cases of pneumonia reported no severe leukopenia during or following the exhibition of this drug.

However, in later reports by other authors, the finding of leukopenia is mentioned. Lloyd, Erskine, and Johnson<sup>4</sup> noted a slight, but definite, depression of the total number of white blood cells, with polymorphonuclear leukopenia and relative lymphocytosis. They also noticed the frequent appearance of skin rashes between the eighth and fourteenth days of treatment.

The first cases of agranulocytosis following sulfapyridine medication to be published were those of Johnston<sup>5</sup> and Coxon and Forbes.<sup>6</sup> Johnston's case was a primiparous patient aged 36 who suffered extensive lacerations in instrumental delivery of a fetus and had manual removal of the placenta. Sulfapyridine was given when she developed signs of peritonitis and streptococcus viridans septicemia. Leukopenia was detected on the eighteenth day, a systolic murmur became audible over the precordium and death occurred on the twenty-sixth day. The lowest total white cell count in this case was 1200 with 8 per cent polymorphonuclears, the agranulocytosis appearing three days later with a

<sup>2</sup> Wien, R.: Toxicity of 2-(p-amino benzenesulphonamido), pyridine, *Quart. J. Pharm. and Pharmacology*, **11**:217-224, (April-June) 1938.

<sup>3</sup> Evans, G. M., and Gaisford, W. F.: Treatment of pneumonia with 2-(p-amino benzenesulphonamido) pyridine, *Lancet* **2**:14 (July 2) 1938.

<sup>4</sup> Lloyd, V. E., Erskine, D. and Johnson, A. G.: Chemotherapy of gonorrhea with M&B 693, *Lancet* **2**:1160 (Nov. 19) 1938.

<sup>5</sup> Johnston, F. D., Agranulocytosis following treatment with M&B 693, *Lancet* **2**:1200 (Nov. 19) 1938.

<sup>6</sup> Coxon, R. V. and Forbes, J. R.: Agranulocytic angina following administration of M&B 693, *Lancet* **2**:1412-1413 (Dec. 17) 1938.

<sup>1</sup> Shecket, H. A., and Price, A. E. Fatal Granulocytopenia Following Administration of Sulfanilamide, *J.A.M.A.* **112**:823 (March 4) 1939.

Date	Temp.	White Blood Cells	Polynuclears	Treatment
Feb. 23	103.0	1150	0%	10 cc. Pentnucleotide every six hours.
24	103.0	2000	1%	10 cc. Pentnucleotide every six hours.
25	104.0	1400	0%	10 cc. Pentnucleotide every six hours.
				500 cc. citrated whole blood.
26	103.6	1600	3%	10 cc. Pentnucleotide every six hours.
27	104.8	2500	15%	10 cc. Pentnucleotide every eight hours.
28	101.0	5400	10%	10 cc. Pentnucleotide every twelve hours.
			42% myelocytes	500 cc. citrated whole blood.
Mar. 1	98.0	6400	15%	5 cc. Pentnucleotide every twelve hours.
			55% myelocytes	
Mar. 4	99.0	30,400	46%	5 cc. Pentnucleotide every twelve hours.
			30% myelocytes	



total count of 2200. The patient received 54 gm. of sulfapyridine in eleven days.

The report by Coxon and Forbes was that of a woman, aged 42, whose primary illness was typhoid fever. Thrombosis of the femoral and popliteal veins appeared several weeks after the onset of the illness and M. and B. 693 was administered. After 54 gm. had been given during eighteen days, she complained of sore throat and had a chill with a rise of temperature. On the fifth day following discontinuance of sulfapyridine the white cell count was 100 with complete agranulocytosis. This patient recovered despite a thrombosis of the right femoral vein. The original illness may have been a contributory factor in this case, though the agranulocytosis appeared a considerable time (6 weeks) after the onset of typhoid symptoms.

Barrett, et al.,<sup>7</sup> in their series of children treated with sulfapyridine for pneumococcal infections, described a child in whom agranulocytic angina developed. This was a girl, aged 10 years, suffering from pneumococcal peritonitis and pelvic abscess. Her white cell count fell to 75 per cubic millimeter with a complete agranulocytosis, then returned to 2200 over a period of several days during which abscesses formed in the neck. The patient died following a hemorrhage from an incision in the pharynx where drainage had been instituted. She received 80.9 gm. of sulfapyridine during seventeen days over a period of twenty-six days.

In all the cases, with the exception of the last,

it is interesting to note that the infection was due to an organism other than the pneumococcus, the organism against which sulfapyridine was designed to be especially active. The total dose of sulfapyridine in all the cases except the last was approximately the same. That this fact has any significance is open to question as many patients have received total amounts greater than 50 gm. without developing granulocytopenia. However, it may appear ultimately that larger doses of the drug are necessary against bacteria other than the pneumococcus, for doses as low as 15 to 25 gm. have apparently been successful against infections due to the latter alone.<sup>8</sup>

At present it is impossible to say that sulfapyridine is less active in causing agranulocytosis than sulfanilamide. It is obvious to the reader of numerous reports on the subject that the effective blood concentration of sulfapyridine has varied considerably in different patients and consequently it probably has questionable bearing on the particular problem discussed here. It can be reiterated that any patient receiving sulfapyridine should have total and differential white blood counts every other day or even daily, if feasible, and the symptoms which precede and accompany agranulocytic angina should be kept constantly in mind by the attending physician. When granulocytopenia or agranulocytosis appears, sulfapyridine medication should be stopped and treatment should be vigorous and should employ all available means considered effective against this dangerous disease.

3740 CENTRAL AVENUE.

<sup>7</sup> Barnett, H. L., Hartman, A. F., Perley, A. M. and Ruhoff, M. B.: The treatment of pneumococcal infections in infants and children with sulfapyridine, *J.A.M.A.* 112:518 (Feb. 11) 1939.

<sup>8</sup> Flippin, H. F., Lockwood, J. S., Pepper, D. S., and Schwartz, L.: The treatment of pneumococcal pneumonia with sulfapyridine. *J.A.M.A.* 112:529 (Feb. 11) 1939.

## RETROPERITONEAL SARCOMA\*

### A REVIEW AND ADDITIONAL CASE REPORTS

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Gary

Presumed extreme rarity makes retroperitoneal sarcoma a disease seldom considered in the making of a differential diagnosis. We have seen four cases within the last two years. The diagnostic pitfalls encountered impelled us to review the literature. It is our belief that the condition is often unrecognized. As long ago as 1865 Waldeyer<sup>1</sup> reported a case of retroperitoneal liposarcoma weighing 63 pounds with metastases to the liver and the lungs. Lenger<sup>2</sup> reported a case of liposarcoma weighing 5500 gms. reoperated

twice for metastases. Hartwig<sup>3</sup> reported a lipoma of eight years' duration that was 3500 gms. and showed on biopsy beginning malignant change. It originated in the peri-renal capsule, pushing the peritoneum forward. G. McConnell<sup>4</sup> reviewed eight cases of recurrent liposarcoma of the kidney region and added one of his own. L. C. Knox<sup>5</sup> in 1919 reported on two of his own cases, both previously operated on but not diagnosed as retroperitoneal liposarcoma until the second laparotomy. Caldwell

\* Presented before the Tenth District Medical Society meeting, April 13, 1939.

<sup>1</sup> W. Waldeyer: *Virchow's Archives*; XXXII, 543; 1865.

<sup>2</sup> Lenger: *Société Belge de chirurgie*, June 24, 1899.

<sup>3</sup> Carl Hartwig: *Amer. Jour. Urol.*, III, 45; 1907.

<sup>4</sup> McConnell: *Journal Medical Research*, 1908; XIX, 225.

<sup>5</sup> L. C. Knox: *Proceedings New York Pathology Society*, 1919, XIX; 90.

Author	Bibliography	Sex Age	Duration Tumor	Location	Size Weight	Remarks
Hirsh and Wells	Amer. Journal Medical Science 1920, CLIX pp 356.	M 55	Fibro-lipo sarcoma 3½ years	Between 2 ant.Layers mesent.	Five head adult 69 lbs.	Metastases; spleen, psoas muscles, multiple tumors and nodules of various sizes in abdomen, inguinal.
Knox	Proceedings, N.Y. Path. Society 1919, XIX, 90	F 28	Myxolipo sarcoma 1½ years	Retro-peritoneal	Three Kidneys	Recurrence; more vascular and more lobulated; 6 months X-ray then another. (both abdominal.)
Knox	Proceedings, N.Y. Path. Society 1919, XIX, 90	F 55	Myxolipo sarcoma	Retro-peritoneal	Child's Head	Recurrence 5 months. Stony hard mass retroperitoneal involv. left pelvis iliac fossa. Prognosis unfavorable.
Hartwig	American Journal Urology, Vol. III 45, 1907	F 36	Lipoma under going sarcomatous changes	Right Kidney	Adult's Head 3500 gm	8 yrs. encapsulated. Probably arose from lipoma in the cortex of kidney, not from fat in capsule of kidney.
Caldwell and Zininger	Surg. Gyn. & Ob. 40; 476; 1925	M 69	Lipo-sarcoma 45 days	Cauda equina extra-dural	5x4x3	Non-encapsulated. Lived 3 days after operation.
Cornolle	Arch. fur Path. Anatomy, etc. 1921, CCXXX, 68	F 18	Lipo-sarcoma	Upper Thigh		Encapsulated; surface smooth glistening; cut surface lobulated pale yellow and hard.
Cornolle	Arch. fur Path. Anatomy, etc. 1921, CCXXX, 68	M ?	Lipo-sarcoma	Upper Thigh	8cm diameter	Encapsulated; hard; dark yellow and brown. Infiltrating the upper thigh. Invading the musculature.
Heliger Schiller	Surg. Gyn. & Ob. 1918; 27; 218	F 67	Lipoma with sarcoma 6 years	Breast	Orange with plum size nodules	Multiple (3) recurred 6 years after operation.
Heliger Schiller	Surg. Gyn. & Ob. 1918; 27; 218	F 67	Lipoma with sarcoma years	Thigh just above knee	Egg size several hard nodules	Painful last 6 weeks, so operated.
Lenger	Societe Belge de Chirurgie, June 24, 1899	M 39	Liposarcoma round cell sarcoma	Right peri-renal capsule	5500 grams	Little said about fatty tissue tumors showed small round cell sarcomas.
Alsberg	Quoted by Robertson Jour. Med. Research 35; 131, 1916-17	F	Lipoma with spindle cell sarcoma	Right side Kidney	13x8x10 cm	Encapsulated; surface smooth with row of projecting yellow nodules.
J. H. Nienhius	Zeitschrift fur Krebs-forschung 22; 434-445, 1925	M 58	Liposarcoma with metastasis	Pancreas mesentery	Hazel nut to apple	2½ years, multiple tumor metastasis in pelvis, sigmoid left sciatic vertebrae, pancreas, femur, sternum, etc.
R. H. Jaffe	Arch. Path. & Lab. Med. Vol. I, pp. 381-87 March, 1926	F 34	Lipo-sarcoma 2 years	Left Groin	20x20 cm	Non encapsulated, white friable and coconut sized (Primary) recurrence after 2 years invaded femoral, lung.
R. H. Jaffe	Arch. Path. & Lab. Med. Vol. I, pp. 381-87 March, 1926	F 41	Lipoma pseudo myxomatodes	Left Groin	10x5x7	Macroscopic suggested sarcomatous degeneration, irregular mass of large and small, soft, yellow lobules. recur.

and Zininger<sup>6</sup> discuss the three general types of malignancy as being "1. lipo-myxo-sarcoma and allied tumors; 2. lipomata with areas of sarcomatous degeneration; 3. true liposarcoma." Robertson<sup>7</sup> in 1916 collected fifty cases and added one of his own. He suggested the name of "lipoma myxomatodes."

These tumors arise wherever lipomata are found but reports show the majority to be in the retroperitoneal tissues, with the thighs next in

frequency. Of Robertson's cases, 17 were retroperitoneal, 15 were in the thigh tissues, and the rest scattered. These growths develop rather slowly and tend to encapsulate but they recur readily and eventually metastasize. Histologically, the gelatinous, semi-fluid material which has the physical properties and staining reaction of mucin is the feature most characteristic. A digest of the other cases reported is presented in Table I. Our own cases follow.

#### CASE REPORTS

Case 1. H. B., school girl, age 13, seen Oct. 13, 1936, with acute increase in temperature and rapid onset of paralysis of both legs. Physical

<sup>6</sup> Caldwell and Zininger: *Surgery, Gynecology and Obstetrics* 40; 476; 1925.

<sup>7</sup> Robertson, H. E.: *Journal Medical Research*. XXXV; 131, 1916-1917.



examination revealed also considerable weakness of the left hand. A tentative diagnosis of infantile paralysis was made. Two pediatricians confirmed this. The hand cleared up but anesthesia of the legs continued and incontinence appeared. In April, 1937, she went to Warm Springs, Georgia, for baths, etc. A leading Atlanta neurologist diagnosed this as a spinal cord lesion. By the summer of 1937 a mass began to point in the left flank posteriorly and x-ray suggested malignancy. A biopsy revealed retroperitoneal sarcoma. Progress was steadily downward in spite of deep x-ray therapy, etc. In reviewing this case, we were unable to decide whether there had been any infantile paralysis at the start or whether that was merely a bizarre beginning to the malignancy.

Case 2. L. D., steel-worker, age 32, being reported through the courtesy of Dr. James White of Gary. First seen March 18, 1937, when he was operated upon for acute appendicitis. He returned to work but was weak, and on May 9, 1938, had an attack of what was diagnosed as the "flu." He was seen by Dr. White on May 11, when a mass was noted in the right flank. Laparotomy revealed a tumor first diagnosed as hypernephroma but, histologically, it was a typical spindle cell sarcoma. The patient died June 26, 1938.

Case 3. J. G., steel-worker, age 21, seen May 15, 1937, with, apparently, acute appendicitis. Opera-

tion revealed acute injection of the organ. Recovery was uneventful and he worked until November, 1937, when vague pains in the right flank appeared. A mass became palpable and he was operated upon in February, 1938, when an apparent hematoma was opened and about a pint of clotted blood removed from the anterior surface of the psoas muscle. No biopsy was done as this was not considered a new growth. Four months later a third laparotomy showed the true nature of the case and biopsy revealed a spindle cell sarcoma similar to case 2. The patient died February 2, 1939.

Case 4. H. W., school-boy, age 15, gave history of being struck in the left groin by a handball in July, 1938. A hematoma formed. Heat, etc., was applied but an operation became necessary and another surgeon removed what he considered to be a blood clot. Within four months there was a recurrent mass in the flank at which time one of us saw him. Exploration and biopsy revealed a retroperitoneal sarcoma. This patient is still alive at the present writing.

#### SUMMARY

1. Four additional cases of retroperitoneal sarcoma are reported.
2. Literature is noted and reviewed, briefly.
3. Diagnostic difficulties are pointed out.
4. A plea is made to keep this condition in mind as it is believed that many more cases are seen than are reported.

## THE WILL TO LIVE

JOHN R. FRANK, M.D.

Valparaiso

We cannot, by thought, change our statures; we cannot change our hereditary characteristics; but we can, by giving study to our diet and eating habits, radically modify our lives, our feeling of well being and the real joys of life. We can prolong life, and give pause to the degenerative vascular type of disease common to the aged.

This article is written not for your patients, though they may benefit from it, but for you, the physician, whether old or young. As we look over the column headed "Deaths" in *The Journal of A. M. A.* and in our own state JOURNAL, where is given not only the age but the cause of death, we note that a large majority of physicians die of heart disease or a cardio-vascular type of disease, such as cerebral hemorrhage or chronic Bright's disease, which is really a vascular disease of the kidneys. Isn't it time to say, "Physician, heal thyself"?

The younger physician should try to form a mental picture of what he will be like as an old man, and remember that he is now making that old fellow what he will be. Every intemperance in eating or drinking counts against him, shortens

his life a little. We can say, as did "Old Rip," that we won't count this one, but Mother Nature counts them, every one.

Should we let our inner craving for certain foods be a guide in determining what we eat? This is a safe guide most of the time, but if followed too much, experience shows that we get deficiency diseases. Our wives, it seems, select most of our food, and prepare it to suit themselves. Therefore, they should be taught and educated in the foods essential for health.

It is a good thing for us to study the lives and dietary habits of those in our community who have arrived at a ripe old age, and who are yet hearty and enjoying life. In my community there are left only two Civil War veterans, who are ninety-one and ninety-five years of age. I asked one what he ate, and he replied, "Oh, I eat most everything. I eat a little meat once a day, and I always quit eating when I am a little hungry." The last statement probably contains the secret of his long life.

Looking into the dim and great past, we find Count Luigi Cornaro, a Venetian nobleman who

lived at the time of Columbus and Ponce de Leon; he was famous for his longevity. He lived to the age of ninety-nine years at a time when most others died at thirty-five to fifty years. How did he do it? He wrote a book telling posterity about his diet. At thirty-five years his constitution and health were so impaired by "youthful dissipation," he claimed, that his life was despaired of. But he intelligently set his mind to work out a diet which was best for him, one that made him feel like a new man, and he resolutely kept to this diet the remainder of his very active life. As a result, in his nineties he was active, and had few of the infirmities of age. Paracelsus, a contemporary of Count Cornaro, sought the "elixir vitae" in the laboratory. He died at forty-eight of an overdose of alcohol. Ponce de Leon, another close contemporary, sought the "Fountain of Youth" in the Everglades of Florida, only to die at fifty-two from a poisoned arrow.

What was Cornaro's life giving formula? What was it that rejuvenated him at thirty-five and added sixty-four years to his life?

The diet, which he worked out himself by trial and error, consisted of meager amounts of bread (whole wheat), soup, eggs and meat (veal and lamb usually), and some fish. He apparently ate no fruits or vegetables, but got his vitamin C from fresh grape juice. He could have gotten vitamin C from meat, if he had eaten it raw or fried rare, but this he did not do, for during two months of the year, July and August, when he could not obtain fresh grape juice, he suffered. He would become weak, and his physician often feared he would die, but within two or three days after drinking "new wine" in September, made from new grapes, his vigorous health would return. The important and most marvelous factor in Cornaro's diet is not what he ate, but its very small amount. He strictly limited himself to twelve ounces a day of solid food and fourteen ounces of his "new wine," or grape juice. The latter did furnish considerable energy from its grape sugar, and as mentioned, supplied vitamin C. This was his idea of temperance. He related that once, on the advice of his physician, he increased the amount of solid food taken daily to fourteen ounces, and was made ill. Immediately upon returning to the twelve ounces of food daily he got well. We can figure that, even if a considerable portion of his meat was fat (which gives nine calories per gram as against four and one-half calories for protein and carbohydrates), he must have lived on a daily energy ration of not over fifteen to eighteen hundred calories. Compare this to the three thousand calories that an active man, such as he was, is now supposed to require.

The lesson we learn from Count Cornaro and from the late John D. Rockefeller, who attained the same age, is that if we would live long, we must restrict *the amount* of our diet. We now

know what foods to eat for a complete diet: an adequate supply of proteins, carbohydrates, fats, mineral salts and vitamins, but we have not yet acquired enough self control or learned how to inhibit the appetite for food.

Dr. V. Stephansson, the "living human guinea pig," as he terms himself, has shown that fresh meat, raw or cooked rare, is a complete food, for he lived on such a diet for over two years, with no signs of any diseased condition or avitaminosis. He has cured scurvy in three days with raw meat. Other experimenters have lately fed dogs all they would eat of meat, and produced typical cardio-vascular disease and earlier death, as compared to dogs fed solely on a diet of meat.

We can safely conclude that the continued ingestion of more food than is required for the body's needs overworks and eventually untimely wears out life's most vital organ, the heart, and causes premature senile and arterio-sclerotic changes.

Man, unfortunately, is so made that his digestive organ, the stomach, is directly under the organ most vital to life, the heart. Therefore, overeating and too frequent eating (before the stomach is empty), produces a gas in the fundus and, therefore, a pressure which impedes heart action and causes the heart to be overworked. When the heart should rest during sleep, it is often overtaxed by heavy or late dinners, and when it should beat slowly, so as to allow a rest between beats, we force it to beat rapidly, not only by an overfilled stomach below, but by excessive sweets in the diet, and by caffein-containing and alcoholic drinks.

Here are a few valuable proverbs and maxims picked up here and there:

When in doubt, abstain. (Zoroaster.)

Eat to live, not live to eat.

He who would eat much, must eat little. (Cornaro.)

Hunger, a keen appetite, doubles the pleasure of eating.

No man is free who cannot command himself. (Pythagoras.) Are you a slave to alcohol, tobacco, etc.?

Our life line is measured inversely proportional to our belt line.

Live temperately. Avoid excess in all things.

Ten pounds overweight may mean ten years from life.

Life is what we are alive to. (Babcock.)

Thirst teaches all animals to drink, but drunkenness belongs only to man. (Fielding.)

Unquestionably, the best part of a physician's life, and the years in which he is the most useful to his community because of his ripened experience and seasoned judgment, are the later years of his life. Let us so live now that that "old man" of the distant future will be active, strong and buoyant with the joy of the "last of life for which the first was made."



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AUGUST, 1939

## Editorials

### THE HEART IN MIDDLE LIFE

It happens not infrequently that a drug long used empirically justifies itself when tested in the laboratory of the pharmacologist. So, too, a term which has long been used to cover a multitude of slipshod diagnoses may eventually come into its own. "Heart failure" has for many years been a handy appellation to apply to any obscure cause of death in which the heart was either directly or remotely involved, but in recent years the arduous effort of many physiologists, pathologists, and clinicians has established heart failure as a distinct pathological entity, with a readily recognizable and scientifically demonstrable clinical picture.

Fishberg<sup>1</sup> says that "to a large extent this progress has resulted from the introduction of quantitative methods for the measurement of some of the fundamental circulatory variables in health and disease (such as) determination of the cardiac output, the velocity of the blood flow, the venous pressure, the respiratory volumes, the circulatory blood volume and the gas contents and reaction of the arterial blood. . . . Nor have these advances been purely academic. They enable the physician to introduce a larger element of 'quantitative' thinking in the interpretation of the clinical picture and the treatment of the patient."

It is, however, most unfortunate that with all of the scientific data presented by such workers as Tilney Harrison, Peabody and many others, we do not know the underlying causes of the changes which occur in many "circulatory variables." In

other words, while we have adequate knowledge of the mechanism of heart failure, we know little or nothing of its etiology.

Careful research, particularly that of Gross and Wearne, has established accurately the blood supply to the heart but we do not know with any certainty the underlying cause of degeneration or disease of the blood vessels themselves. Timothy Leary has attempted to put the blame on a disturbance of lipid metabolism and Winternitz has recently published a magnificent volume in which he presents a strong argument to prove that the trouble lies with the *vasa-vasorum*.

In spite of all of this scientific achievement, Fishberg humbly and courageously admits that though all of these studies have been interesting and valuable they have not furnished a definite index of the efficiency of the circulatory apparatus as sensitive as are the subjective symptoms of the patient. These subjective perceptions are likely to precede, by months or years, any demonstrable objective findings. The heart is to be regarded simply as a power machine and when it ceases to function smoothly the patient is the first to be aware of its inefficiency. It behooves the physician to be constantly on the alert to recognize these early signs of failure. They may be bizarre and obscure—slight changes in the temperament, atypical digestive disturbances, failing memory, insomnia and more particularly slight dyspnoea on ordinary exertion, or perhaps mild anginal pain. It is at this stage of cardiac insufficiency that the physician can render his patient a real service, not so much by the administration of drugs as by attention to his regimen. Heart failure in the great majority of patients who have had no valvular disease, first manifests itself in middle life and it is the business of the physician to anticipate if possible, in his middle aged patients, the myocardial insufficiency which is likely to ensue.

There is probably a constitutional factor in the production of early myocardial disease; that is, the fabric from which the patient is made may contain a poor or easily damaged vascular system. But there are many, very many, extrinsic factors which tend to produce vascular degeneration.

We in America are prone to be intemperate; we work too hard, we worry too much, we eat and drink too much and we exercise too much. We have not learned the meaning of what the pre-war German called *gemütlichkeit*, an untranslatable word which encompasses leisure, contentment and moderation in all of the acts of daily life. Nor have we learned, as have the Latins, the benefit to be derived from the siesta hour. We hurry through our work in order that we may have time to "play" golf or bridge, putting into our recreation [*sic*] more enthusiasm and more energy than we put into our job. In consequence, our hearts are driven beyond their capacity and suffer unnecessary damage. A single word would, if it could be properly impressed upon the minds of all of us, lay an excellent foundation for the prevention of early

<sup>1</sup> Fishberg, Arthur M.: Heart Failure. 1st ed. Lea & Febiger, Philadelphia, 1937.

myocardial degeneration: moderation. Moderation in our work and in our play and in our habits. The injunction is not a new one. It harks back to the eleventh century and was the theme of the regimen of health familiarly known as that of the School of Salerno:

*The Salerne Schoole doth by these lines impart  
All health to England's King, and doth advise  
From care his head to keepe, from wrath his  
heart,  
Drinke not much wine, sup light, and soone  
arise,  
When meate is gone, long sitting breedeth  
smart:  
And after-noone still waking keepe your eyes.  
When mov'd you find your selfe to Nature's  
Needs,  
Forbeare them not, for that much danger  
breeds,  
Use three Physicians still; first Doctor Quiet,  
Next Doctor Merry-man, and Doctor Dyet.*

## THE MALE CLIMACTERIC

There has been considerable discussion as to whether or not the male undergoes a physiological change akin to that of the female menopause. Earlier pronouncements on the subject aroused no little comment, and many physicians refused to accept the theory. However, intensive study of the subject in recent years has made it clear that the male does undergo a change, and that during the process there are definite symptoms which, if properly recognized, will explain many phenomena hitherto classed among the inexplicables.

Among the many articles noted, one by Dr. August A. Werner<sup>1</sup> of St. Louis affords a most lucid explanation of this condition and his article is a notable contribution to the increasing literature on the subject. He agrees that perhaps all men do not have pronounced symptoms and some men, in fact, seem to pass through the early fifties without exhibiting any signs of physical change. (It is noted that men arrive at this period at a later time in life than women.) It is, of course, reasonable to expect that in the later years of life in a man, his gonadal activities will experience a decline, just as in women; this, of course, does not mean the oncoming of impotence but nevertheless there is a definite gonadal decline.

Among the symptoms noted in the male at this time are the periods of "hot flashes," irritability, sudden changes in moods, tachycardia, together with various disturbances of the whole nervous system. In some cases we have observed that the mental state of the patient is quite disturbed even to the point of making it impossible for him to carry on his usual work during the year or years that the change is active. Recently a man was seen who was definitely a psychic, and a neurologist friend said that neurologists approach a diagnosis in the man of fifty with the thought of the climac-

teric chiefly in mind. Involutional melancholia is rather commonly diagnosed in such cases.

Testosterone propionate seems to have a very beneficial effect upon these patients, particularly if they are concerned as to their sexual ability as many of them are.

The subject is of sufficient importance to demand more than common study, and we are certain that the physician who recognizes the phenomena in men of this age will be enabled to clear up many cases that otherwise would remain among the obscure. A careful and intimate questioning often will bring out data of the greatest importance, and for this the establishment of a physician-patient relationship is necessary such as will cause the patient to give his story in minutest detail. A medical man of our acquaintance states that he frequently comes in contact with these cases and that once he has the confidence of the patient, the successful treatment becomes more or less a matter of routine.

## I. U. HOSPITAL LAW (H. B. 74)

Reactions, rumors, and resolutions such as have seldom marked any act having to do with medical practice in Indiana within recent years have characterized the advent of the so-called "Indiana University Hospital law" (H. B. 74) which went into effect July 1, 1939. As the press has been filled with comment concerning this Act, and as some doctors have seen in it the threat of centralizing medical practice in this state in the medical school at Indianapolis, a brief review of the facts may help to clarify some misunderstandings and misconceptions that the average busy physicians may have about the Act, and may form a basis for real constructive action on the part of each local medical society of the state in facing the never-ending problem of rendering medical care to the indigent sick.

Several articles already have appeared in THE JOURNAL during the past few months concerning the new law, and when the bill which created it was introduced into the legislature last winter, each county society secretary and legislative committeeman was notified.

A copy of the Act and a statement concerning it, by Dean Gatch, appears in this issue of THE JOURNAL, and despite the fact that most doctors already may know what the new law does, here is a brief statement in regard to the provisions that have caused most discussion and just how they change the method of admission to the University hospitals.

Under the new law, county judges have the right to commit patients who are unable to pay for hospital services to the Long and Coleman hospitals, and the county from which each patient comes must pay the bill. Under the old law, such commitments to the Long and Coleman hospitals were made by

<sup>1</sup> Werner, August A.: The Male Climacteric, J. A. M. A., 112: 1441, (April 15) 1939.



the township trustees and the costs were paid from state funds.

Here it must be stated that, despite many statements to the contrary, the new law does not in any way change the right of the township trustees to commit patients to their own local hospitals.

With the above points in mind, one would naturally figure that instead of more patients coming to the University hospitals, under the new Act, local officials would commit patients to their own local hospitals, especially as their own county and not the state must pay for their hospitalization. But apparently in some places it doesn't work out that way. Some township trustees, under the old law, followed the practice of committing patients to the Long and Coleman hospitals and having the state pay the expenses, and thereby eliminating the necessity of paying for the hospitalization of these cases out of local funds. The fact that under the new law they can no longer do this has severely antagonized some trustees and further complicates the situation. One doctor in Bartholomew county reported that some trustees in that county have stoutly refused to commit their cases to local hospitals and were telling all who sought relief from them to go to see the judge and get him to commit the patient to the University hospitals in Indianapolis. Thus some of the trustees apparently have taken advantage of the new law to put the judge on the spot in some of these cases by making the judge responsible for the cases and, under the law, the judges *must* send such cases to the University hospitals.

As was said before, there is nothing in the new Act which relieves the township trustee of the duty of seeing that medical services are rendered the indigent sick of his township.

A brief review of the legislative history of the Act may be worth while. Records show that the bill was introduced in the House on January 13, 1939, and became House Bill 74. The authors of the bill were Herbert H. Evans (Henry), Edward H. Stein (Greene), J. Frank Smith (Tippecanoe), Elam Y. Guernsey (Lawrence), George W. Henley (Monroe), Glenn A. Markland (Boone), Charles L. Coffin (Parke), Daniel L. Bower (Marion), Renos H. Richards (Owen and Putnam), Harry R. Fawcett (Howard) and Merle F. Coons (Montgomery). Under the sponsorship of Evans and Stein, the Republican and Democratic floor leaders, it passed the house by an overwhelming majority in short order.

In the Senate, it was jointly sponsored by Senator Walter Vermillion of Anderson and Senator Floyd Garrott of Battleground, senate members of the state budget committee.

Now let's follow the course of action taken by the Indiana State Medical Association in regard to the bill. Previous to its introduction, it was discussed at a meeting by the Legislative Committee and it was then discussed by the Council and by the Secretaries' Conference of the Indiana State Med-

ical Association. The week of its introduction, the state legislative committee notified each county society and Lawrence county was the only one to object to the Act.

The purpose of the bill, say the University officials, was to get additional funds direct from local communities to meet the costs of hospitalization of these patients, rather than having to meet the costs of caring for these patients out of state funds which had been budgeted to the University. Both at the time the bill was before the legislature and since the passage of the bill, University officials have been firm in their denial that they desired any patient to come to Indianapolis who could obtain hospital care locally, and they have been equally firm in their denial that through this Act they hope to create a demand that will result in the construction of a super-hospital in Indianapolis. In fact, they still maintain that the effect of the Act will be to lighten rather than increase the demands on the state hospitals, and they feel that the tendency will be to keep patients in their own home hospitals rather than have them come to Indianapolis for care.

Now, what to do about it? Here are some suggestions:

*First:* If there is anything wrong with this law as it is carried out in actual practice, proper amendments can be introduced at the next legislature. Perhaps it should be changed so that the townships from where each patient comes, rather than the counties, will pay the bill for hospitalization at the University hospitals, and surely the judge should not be restricted as he is in the present law of having to commit indigent patients to University hospitals only. He should have the same right that he has in the case of minors—that is, of having an option of sending them to the University hospitals or of committing them to their own local hospitals.

*Second:* The Executive and Legislative Committees of the Indiana State Medical Association recommend that each county medical society should meet with or appoint a committee to meet with the judge and trustees as has been done in some counties and discuss the problems arising from the new Act and come to some definite policy in regard to sending cases to Indianapolis. The policy of the Executive Committee, as has been expressed on numerous occasions, is that whenever possible all patients should receive treatment in their own home community from their own family physician.

*Third:* Under the Act, the Board of Trustees of the University is given broad authority in laying down rules and regulations for the administration of this law. Adoption of wise and equitable rules and regulations by the Board will do much to keep the act from becoming a burden to the public and the profession.

*Fourth:* From the standpoint of the public, this fourth suggestion is the most important one here mentioned. Now is the time for each medical society to meet with the township trustees and

work any of the "kinks" out of the present system of handling indigent cases that may exist in their local communities, and now is the time to establish once and for all in any communities where it does not now exist the right of each patient to go to his own physician whether he is a millionaire or an indigent.

## A MODERN MEDICAL SAGA

The editorial management of *The Journal of the American Medical Association* is to be congratulated for a monumental contribution to medicine in the publication of the proceedings in two Texas federal courts in each of which suit had been brought against Dr. Morris Fishbein as editor of that Journal. The first case was that of Dr. John R. Brinkley of goat gland notoriety; he endeavored to extract from Dr. Fishbein a considerable sum, claiming that he had been libeled, maligned, and divers other things. In this instance, *The Journal of the A. M. A.* published the complete report of the trial, including the charge to the jury, a part of which was published in our own JOURNAL for July.

A comprehensive abstract of the Brunson case, the second suit against Dr. Fishbein, also was published in *The Journal of the A. M. A.* Brunson is the Texas doctor who made such extravagant claims regarding his ability to cure tuberculosis, using an inhalation method long ago tried and soon discarded.

Both plaintiffs appeared before the respective juries and each made a sorry spectacle. The attorneys for the defense had their cases well in hand, and in the cross examinations the plaintiffs were completely routed.

The presiding judges seemed eminently fair to both sides, though the plaintiff counsel seemed frequently perturbed that certain evidence was permitted to reach the jury. It seems that the law provides that, in a libel suit, practically the whole life of the plaintiff is open to inspection. In the Brinkley and Brunson cases, there were biographical chapters that could well have been omitted in a court hearing. As was to be expected, the Brinkley case was more spectacular for he is generally regarded as a first-class showman. It was said that he drove to and from the hearings in a specially built car on which his name was emblazoned in thirteen places, including the hub caps. Judging from the printed transcript, we should say that Brinkley left no stone unturned to make his case. From his own statements, it would seem that the goat gland business, followed by his "original" treatment of various prostatic diseases, was a very profitable one, in one year reaching near the million dollar mark. Brunson did not fare so well financially, though he did declare that prior to the unfavorable publicity, for which the suit was brought, he was doing very well indeed.

The Brinkley case reached the jury and, after

some four hours of deliberations, a verdict for the defense was handed to the court. In the Brunson case, however, the presiding judge took the case from the jury and awarded a verdict for the defense. Thus two are added to an already long list of suits against Dr. Fishbein and the American Medical Association, suits totalling several millions of dollars in "damages" sought. As a matter of interest, it may be recorded that the net result of all these suits, financially speaking, was the award of just one dollar in one of the earlier suits.

We believe that the publication of the testimony in these two cases will have a very salutary effect upon those who might seek similar "court relief" when they feel that they have been aggrieved by the publication of matter which they deem inimical to their better interests. For those who like a snappy, interesting tale of modern medical affairs, we commend the reading of the complete transcripts of these two cases.

## FOOD AU NATUREL

Some of the most readable and sensible pronouncements regarding the matter of food that have come to our attention in recent years are quotations taken from an address by W. H. Sebrell, surgeon of the United States Public Health Service, as he spoke before the American Institute of Nutrition in Toronto, Canada, recently.

Dr. Sebrell must have taken his audience off its feet right at the start when he said, "It seems ridiculous to take a natural food stuff in which the vitamins and minerals have been placed by Nature, submit this food stuff to a refining process which removes them, and then add them back to the refined product at an increased cost." A little later in the same address he remarked, "Our deficiency disease problem will never be solved by fortifying foods, but it can be solved by education and by making available to all classes the widest variety of natural, unrefined foods at the lowest possible prices."

While we are in accord with the present day conception of the vitamins, knowing them to be vitally necessary to our physical well being, and while we subscribe to the teaching of our dietitians, we must confess to a high degree of enthusiasm for the pronouncements above quoted. We long have felt that this food "refining" business was carried too far, and to find support from a staff member of our public health service is very gratifying. We recall our earlier days when food was really food, the days when most any sort of provender was highly palatable, and we repeat that many of our food stuffs have undergone too much refining. An item in point is corn meal. Back in the Wild Cat days, we took our corn to the mill where it was ground between stone burrs and the whole corn was returned to us. Perhaps it did not appear as clean and shiny as the product now sold in our stores, but the full flavor of the corn was there,



along with all its food value. We were reminded of this last winter when in answer to an advertisement of an old time grist mill in New England, we received a package of old time corn meal, and it came up to all expectations.

Rice, long a popular dish in this country, now comes to us highly polished instead of in its natural state. We could go on enumerating the ever-changing program in our food supply, mentioning the things that are being done to our hams and our bacon today when they come to us half cooked and in some cases ready for consumption. The aroma added to these products by a prolonged smoking with Hoosier hickory wood is lost, and in the losing there is also lost the flavor that we knew in earlier days. Whether it is due to a desire to present the housewife with food products that require little or no time in preparation, or whether it is due to sales promotion talks on the refining of foods is not known, but we do know that we are in full accord with Dr. Sebrell in the declarations he has made concerning the subject.

## Editorial Notes

Geriatrics is a specialty that has gained little prominence. It is not studied with the same enthusiasm that is responsible for progress in other branches of medicine. Because more people are living to attain old age, it is probable that the aged will make increasing demands upon the medical profession. It is not a tempting field for specialization, for what person will admit that he or she is old enough to require the services of a geriatrist? We know of no such specialists at present, but certainly the time is not far distant when there will be geriatrists for there is much to be done to make the lives of the aged not only bearable but comfortable.

In going over some old newspaper reprints, we recently came across an interesting item, back some 66 years ago. It might serve as a warning to those whose daily tasks require the frequent use of the microscope. Here is the item:

"Professor Clark, of Amherst College, who died recently, shattered his brain and nervous system by too frequent use of a powerful microscope."

Orchids to the Gibson County Medical Society! Under its sponsorship, the citizens of that community have had opportunity to gain accurate knowledge in regard to cancer and syphilis through lectures and pictures. The medical society pre-

sented lectures and pictures at a moving picture house in Princeton, June eighth, at the time of the district medical society meeting held there, and it is reported that the lectures were well attended by laymen of the community.

Dr. Edward C. Mitchell of Memphis, Tennessee, in his address as chairman of the Section on Pediatrics at the St. Louis session of the American Medical Association, called attention to the American Legion child health five year plan and the Indiana Immunizing Plan, both of which plans originated within the Indiana State Medical Association. Some have thought that the efforts made in these directions were expensive and useless, but they are beginning to show far-reaching and worthwhile results.

Two months hence most of us will be headed toward Fort Wayne to attend the annual convention of one of the liveliest medical organizations in the country. And most of us are to have the surprise of our lives when the magnitude of the entire program is laid before us. Whether it be due to the trend of the times or to the impending Wagner Act (which recent advices state will not be enacted by the present Congress) we do not know, but something has gotten into the Hoosier profession; they are pepped up no end and the Fort Wayne members are promising the greatest event in the medical history of our state. This again reminds us that advance hotel reservations are handy things to have when you get to Fort Wayne. At the recent St. Louis A. M. A. meeting we took much satisfaction in walking up to the room clerk with a confirmation of our reservation in hand while others fumed and sweated, not knowing where they were to lay their weary heads. Better get that reservation in right now; the hotel folk like it and will give the best to the early comers.

While we have had but little to say on the subject of syphilis for a few months, the subject continues to be a very live one and Surgeon General Parran remains fixed in his determination to impress the great American public that something is going to be done about it. A recent release from that department carries the rather astounding information that the loss of earning power, plus the expense of treating and caring for more than twenty-one thousand cases of blindness due to syphilis, amounts to more than ten million dollars annually. Of course the greater part of this is in the loss of earning power; nevertheless, it brings the staggering figures directly to the attention of students of economics.

On May 15, 1939, the Supreme Court of Indiana reversed the decision of the Circuit Court of Carroll County in the case of *State ex rel Indiana State Board of Medical Registration and Examination vs. Cole*, and directed the circuit court to enter a judgment perpetually enjoining Cole from engaging in the practice of medicine without a license. Evidence disclosed that George L. Cole held himself out as a practitioner of chiropractic by means of newspaper advertising, maintained an office and made x-ray examinations, and administered chiropractic adjustments of the vertebrae of patients to relieve them of physical ailments, and for this he accepted pay and issued receipts therefor which he signed, "Dr. Geo. L. Cole." This, the Supreme Court held, constituted the practice of medicine, and the evidence showed that Cole was not licensed to practice the profession of chiropractic. Practicing without a license in the State of Indiana is not countenanced by our State Board of Medical Registration and Examination, and the Board is to be complimented upon the prosecution and the just decision secured in this case.

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Papers presented before the annual meeting of the Indiana State Medical Association become the property of the Association and are to be published in *THE JOURNAL*. Considerable expense is involved in the employment of reporters to take the proceedings of all scientific meetings and to accept and record all papers presented before those meetings. Two papers from the 1938 session remain to be sent in for publication, and this is unusual for in years past all papers have been in the files of *THE JOURNAL* office immediately following the session. Speakers for the annual meetings have known for several months that they were to present their papers and there can be no excuse for requests to be permitted to send the paper later in order to make revisions or to have it properly typed. It should be ready to read and ready to hand to the reporter for publication in *THE JOURNAL*. When we are forced to write repeatedly for a paper that should have been left with the reporter immediately after it was read, we sincerely hope that all program chairmen will omit that man when speakers are selected again. Perhaps it is a connotation of success—we have noticed repeatedly that the "big" men on our programs invariably have their papers completed at the proper time.

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Dr. Rock Sleyster, in his address as president-elect before the House of Delegates of the American Medical Association at St. Louis, called attention to the fact that thirty years ago the advertising pages of all medical journals were filled with advertisements that would be unacceptable today, and this situation was changed largely through the efforts of the Council on Pharmacy and Chemistry

of the American Medical Association to protect physicians and the public against fraud, imposition, undesirable secrecy and unwarranted therapeutic claims. The national medical journal, the state journals, and many independent medical journals are now free of such advertising, but there still exist a number of magazines, usually sent without subscription charges to all members of the profession and which have come to be known as "throw away" journals, that contain advertising wholly unacceptable to medical magazines like our own *INDIANA JOURNAL*. Dr. Sleyster mentions that the names of leading members of our medical societies sometimes appear as members of "advisory boards" for these "throw-away" magazines, and he finds it hard to believe that such members will lend their names to the promotion of such publications. We venture to suggest that those men sooner or later will find that their good names do not carry the respect and influence that they once did. There is the old adage about a man being known by the company he keeps.

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While the Seventy-fifth Congress authorized the construction of a new building in which to house the Army Medical Library and Museum (and the Act was approved by the President, June 15, 1938), no appropriation was made for the construction of the building. That session of Congress adjourned without making available the necessary money. The present session of Congress was petitioned by the House of Delegates of the A. M. A. (at the San Francisco session) to make the necessary funds available, but the War Department appropriation bill, in which the appropriation for the library building would normally be placed, has passed the House and the Senate and contains no such appropriation, nor is such an appropriation proposed in any other pending bill. State associations were urged to petition the Congress for action in this regard but, up to the present time, we have heard of no further action in the matter. Meanwhile one of the world's most important and extensive medical libraries is crowded into an inadequate building where its volumes cannot be effectually protected. In an era of government building, where much less necessary building goes on all about us, it is difficult to understand why this appropriation is side-tracked.

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"Curbstone prescribing" says an article in the *National Association of Retail Druggists Journal*, is the term applied to the practice of saying to the patient: "Go down to the drug store and get a package of this or that," instead of writing a prescription. In this way the physician not only does the patient an injustice but places the pharmacist in an unenviable spot. The patient is apt to request the wrong item or the wrong form of the product, and he may forget the proper directions. A recent



example is cited of a customer who asked a druggist for "pyramidon." Questioning the customer, it was found that the medicine was to be used for a two-year-old child and the druggist refused to sell the product without more information or a prescription from the physician. When the physician was called, it was learned that elixir of pyramidon was wanted. While druggists probably always will have to contend with such slipshod methods on the part of a few lazy doctors, we are convinced that the great majority of doctors are more careful, and the latter may do their part by teaching their patients to beware of curbstone prescribers.

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Back in 1873 when cholera seemed to have a foothold on the territory north of the Ohio River and when the populace was much concerned over the matter, a southern Indiana physician gave some suggestions for the prevention of this disease which were officially adopted by the community in which he lived. Particularly interesting to us is the warning that "night air" should be avoided, for this was the usual warning given back in the days of our youth—yes, back in the Wild Cat days. The warnings included the following:

1. Avoid unripe fruit, and such as becomes stale or wilted before being cooked or eaten.
2. Keep your skin clean by frequent bathing and change of underclothing.
3. Eat moderately of your accustomed diet—avoid all excess.
4. Do not take physic except in case of necessity, and then in moderation only.
5. Do not suffer diarrhoea to remain unchecked a single hour.
6. Do not expose yourself to the night air unnecessarily, particularly if it be damp.
7. Have all cellars, privies, pig-pens, etc. thoroughly disinfected, as the Sanitary Committee may direct.

It also was recommended that each family "should invest a few cents in copperas to be used as a disinfectant, to be thrown about the premises." Copperas was highly recommended as a "purifier."

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On various occasions we have commented on the fact that we are very proud of our state association, that it is an aggressive, active group, ever ready to tackle most any problem that confronts us. Reading over the reports of officers and committees of the American Medical Association (J.A.M.A. for April 8th), we came across a very interesting set of figures. The Bureau of Economics had contacted all county society secretaries in the country, asking about local fee bills. Twenty-eight percent of these counties sent in their fee bills, as requested; 11% replied to the query but sent in no bills, many of these failing to do so because there was no such schedule in force. But the very high 61% did not answer the request in any manner. A tabulation by states

is published and Indiana makes a very good showing; 83 county societies were contacted and 71 sent in their fee bills. Five additional societies replied to the request, but did not send fee schedules, as they did not have such a document. Only seven counties failed to answer, a record of which we may be very proud. It just goes to show that a state organization has much to do with the attitude of the local groups; if the parent body is functioning properly that spirit is reflected in the county societies and they, too, are active.

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"Spring Satisfaction" is the title of a note published in the May issue of *The Bulletin* of the medical profession of Rochester and Monroe County, New York, which we believe you will enjoy. It is as follows:

"There are men of our profession who derive enjoyment throughout the winter season bedeviling their confreres with varied calls to duty. In the erroneous belief that there is a constant need for enlightenment on the state of medical affairs, scientific or otherwise, mobilization at big and little meetings is urged or demanded. On attendance, one is expected to conceal his boredom over familiar fact and applaud pet enthusiasms of dubious verity, while presiding officers indulge in exhibitionism akin to, but somewhat less comprehensible than, goldfish swallowing. Between times, committees and commissions must gather and foregather until cross-agglutination obscures the reports of progress. From the money-changers, reminders of unpaid dues speed alike to the indefensibly negligent and the faintly procrastinatory. Winter is a plague of sinusitis, arthritis, vitamin D deficiency and program compilers.

"But Spring has come and with it appeasement. As the sap pushes up past the concrete thromboses in the trees of the Academy grounds, tranquility reigns thereabouts. Sunlight and sulfanilamide do away with the peremptory demands of the sick. The relative entertainment value of the Flushing Fair and the Path Picnic receive serious consideration. The season of peace and private pleasure has arrived."

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Elmer Wolfe, of the *New Harmony Times*, rather frequently offers comment regarding the profession of medicine, all of which is of the complimentary sort. In his very readable weekly, he conducts a "column" which strongly reminds us of William Allen White, sage of Emporia, Kansas, in that he permits his personal philosophy a very free rein. In a recent issue he has somewhat to say regarding the country doctor and his comment is such that we believe it will be of interest to our readers.

The country doctor was and is one of America's greatest institutions, yet we know of no monument having been built to him or to his memory. Last winter in a community that we visit which has been

served by a physician who would rate as belonging to the country doctor type, a true pattern of the quintuplet's Dafoe, this physician fell ill and for a time it was feared he would not recover. Then the people for miles around realized what his presence in the community meant to them. They could call at his office for their simpler ills, or if the case were more serious, his close presence made it possible to have him professionally at fees not prohibitive, as was the case when a physician from a distance was called in. Besides he possessed their confidence; he had brought many of them into the world, had nursed them through many serious illnesses and was more to them than a physician—he was their friend. But it was not until his life was despaired of that his true worth and value to his community was appreciated for his people realized that if he were called away, no one would take his place. This man who has served his community so well and faithfully, as Dr. Dafoe served Callander before the quintuplets came, unknown save in their own locality is an honor to a noble profession whose chief aim is the benefaction of humanity.

We thank Mr. Wolfe for this kindly tribute to the greatest of the professions.

In this issue on page 437 appears a comprehensive note concerning the first American Congress on Obstetrics and Gynecology which will be held in Cleveland the week of September 11, 1939. This will be an unusual meeting. All groups interested in the problems of maternal and child care, in particular the general practitioner of medicine, are invited and urged to attend. Various professional groups will discuss different phases of maternal and infant care in attempts to correlate their problems. Advance registrations already total more than 1,600, and probably more than 5,000 will attend. Give this program your attention; if possible, be there.

*In Sheep's Clothing*—The National Health Conference having labored, without benefit of "adequate medical care," but solely through mid-wifery, has finally given birth to the anomalous child whose paternity has been acknowledged by Sen. Wagner of New York, and named the "National Health Act of 1939." Luther Burbank, admittedly a genius of cross matching and grafting, produced many a queer specimen. Never before, however, has this country been compelled to view such a monstrosity as is presented in the impending Wagner bill S. 1620. New vistas of cross matching and grafting, such as have never before been conceived, are envisioned in the passage of this Act.

The bill proposes to provide for the general welfare by enabling the several states to make more adequate provision for public health, prevention and control of disease, maternal and child health services, construction and maintenance of needed hospital and health centers, care of the sick, disability insurance, and training of personnel. We pause for breath—because the provisions of the bill are so all encompassing that it leaves us panting.

We always had a vague notion that the medical needs of the people had been fairly well taken care of by the medical profession. Of course, we have never considered the fact that upward of \$1,000,000 a day expended in free services could be of any importance. But we did derive a certain amount of satisfaction from the fact that the independent practice of medicine had been productive of a certain amount of rivalry among the profession for the advancement of medical knowledge, and the ultimate good of mankind, in the stimulation to work and progress in all fields of this intensely interesting profession.

We have, of course, witnessed the increasing span of life expectancy brought about through increased medical knowledge; freedom from pain, and augmented assurance of control of many of the most dreaded diseases; continued improvement of hospital facilities and an ever mounting increase in the number of discoveries and improvements in methods of diagnosis and treatment; and finally through it all a tireless sense of devotion to duty, and an unceasing urge to penetrate the wilderness of misfortune, and a fine, true standard of approach and accomplishment.

Well—it seems we were all wrong. Such services as we might have been giving were inadequate—the politicians and the ultra socially minded have another idea. A dormant crop of propaganda has been unearthed in the medical field. A puerile imagination could readily understand the universal appeal for more and more medical attention—particularly if it were furnished at the expense of some one else. The ultimate political aggrandizement could be easily masked in the hypocritical presentation of the old "boon to mankind" stuff—and we mean "stuff." A superficial glance at the bill reveals the humanitarian idea of expending some \$98,000,000 the first year, increasing thereafter until at the expiration of three years the amount to be expended becomes unlimited. So—Utopia takes a holiday.

One can readily surmise the fate of existing hospitals when government built and controlled institutions enter the field in competition. Perhaps this has been preconceived with the idea of the ultimate control of all things medical.

If all this sounds like "Wolf! Wolf!"—remember the old legend. The day may be very close when, instead of the tried and true satisfactory, independent practice of medicine, we will find ourselves under bureaucratic domination of politically minded social workers who have long labored under the blanket of the sheep's skin of humanitarianism while underneath they display the fangs of wolfish socialization and regimentation.

A thoroughly united medical profession, steeped in unselfish promulgation of the idea of service to all through the methods we know best can be the only answer.—Editorial, N. K. Forster, M.D., Lake County Medical News, June, 1939.





## President's Page



### OLD AGE

A hasty perusal of the directory of the American Medical Association reveals 4,081 physicians listed in Indiana with only a few "not in active practice." Of this number, 540 have lived beyond their biblical allotment of "three score and ten"; 448 are between 70 and 80; 87 are between 80 and 90; and 5 are past 90. All of this number are still in active practice. It would be a privilege personally to interview these physicians who are rightfully the old guard of the profession, and to listen to the anecdotes which have made up their personal experiences in a lifetime of service. It would be interesting to learn of their mental reactions with the approach of the golden years.

It is good to know that there are so many physicians in the state who are "up in years" and still giving freely and willingly of their time and service to humanity. Many of them we number among our acquaintances. Literature reports several who have lived well beyond the century mark, which is well worth noting in a profession where the average length of life is usually low.

There are two groups of so-called "elderly people." There are those who, in their intense desire to fight off the inevitable, have become soured in their attitude toward life and in whom "the milk of human kindness has undergone lactic acid fermentation." They approach the later years with fear and resentment, and are unable to adjust themselves to this as a normal stage in their life cycle. These individuals fail to recognize the importance of a proper attitude toward the preparation of this period during their years of maturity. These, then, arrive at the sunset of life without fore-sight and without philosophy. However, regardless of how much they fight against it, the processes of nature go on and on, and finally they are overwhelmed and as a result suffer hardships of all kinds.

Then there is the other group whose philosophy of life has been a build-up toward old age so that it comes to be the best and happiest period of their existence. They seem to have mellowed with time and never ceased to have grown. Their judgment, their intellectual status, their sense of humor, their interest in active work, and their enthusiasm have increased with the years; they are a joy wherever they go, and there is always a welcome on every door mat for them.

Two outstanding figures of this type were the late John D. Rockefeller and Chief Justice Holmes. Everyone is well acquainted with the last gesture made by the Chief Justice, and everyone who associated with him knew him to be a "grand old man." He guided the destinies of the country for many years and was active until the time of his death.

This latter group has adopted the Oriental attitude toward the approaching years, and has not committed itself to a race with the merciless course of time. These, no doubt, have learned something about the art of living to help preserve their vital functions, and find that the stress and strain of this day and age are enemies to longevity. They realize that there is no use fighting against nature, and that one might just as well grow old gracefully. "The symphony of life should end with a grand finale of peace and serenity and material comfort and spiritual contentment, and not with the crash of a broken drum or cracked cymbals."

To this end a few factors are vitally important. Of these, heredity seems the fundamental requirement. It is believed that an individual's span of life is determined at birth, providing one exercises a moderate amount of care, and barring accidents.

Good health is another huge stepping stone on the road to happiness in old age, the maintenance of which is one's own responsibility, and should receive first consideration at all times. In order to keep the mechanisms of the body in good working order, periodic health examinations, including electrocardiogram, complete blood count, blood chemistry, urinalysis and Wassermann, should be done, the records of which serve as data for future use. Good health habits, moderation and temperance in all things should be observed.

Financial independence contributes a large share to this cup of happiness. It gives one a sense of security, and the power to demand the respect of those about him. When an individual must receive help from friends and relatives through the declining years, it has a deleterious effect, with a tendency to undermine his confidence and self-respect. Many of these people fall into a state of depression and extreme unhappiness because of their status which is often augmented by an unhappy environment filled with quarreling, struggling, strife and discord that is not conducive to happiness at any stage in life, and least of all in old age.

A keen interest in work, activities of various kinds, hobbies of many sorts are assets to the individual. These lend themselves to physical and mental stimulation which keep one alert and on his toes—a good sport, ready for anything, and one who knows how to have fun is a pleasure to know.

Faith in mankind, faith in one's friends, in one's self, and spiritual contentment make for peace and happiness on the stage of life before the curtain falls on a perfect play well done.

*E. M. Van Burskirk.*

# Preliminary Program

## 90th ANNUAL SESSION OF THE INDIANA STATE MEDICAL ASSOCIATION

SHRINE THEATER

FORT WAYNE, INDIANA

OCTOBER 10, 11 and 12, 1939

A meeting of state health officers will be held on Monday, October 9, preceding the meeting of the State Association. The Executive Committee of the Indiana State Medical Association will hold a meeting Monday evening, October 9. The regular session will begin

### TUESDAY, OCTOBER 10, 1939

- 8:00 a.m.—Registration, Shrine Theater Building  
Opening of scientific and commercial exhibits, Shrine Theater Building
- 9:00 a.m.—Annual Golf tournament  
Annual Trap Shoot  
Archery contest
- 12:15 p.m.—Golfers', Trap Shooters' and Archers' luncheons
- 12:30 p.m.—Council meeting
- 4:00 p.m.—Meeting of House of Delegates, Shrine Theater
- 6:30 p.m.—Annual dinner meeting for women physicians
- 7:00 p.m.—Smoker and stag party. Award of golf, trap shooting and archery prizes.

### WEDNESDAY, OCTOBER 11, 1939

Registration desk and exhibit booths open at 8:00 a.m.  
Annual auxiliary breakfast and business meeting  
General Meeting in Shrine Theater with the following guest speakers:

- JOSEPH FELSEN, M.D., New York  
"Newer Concepts of Intestinal Infection."
- BYRL R. KIRKLIN, M.D., Associate Professor of Radiology, University of Minnesota Graduate School, Minneapolis-Rochester  
"Some Contributions of the Roentgen Ray to Advances in Diagnosis"
- FREDERICK W. CLEMENT, M.D., Toledo
- EVAN G. GALBRAITH, M.D., Toledo  
"Post-Operative Pulmonary Complications"
- DR. A. J. CARLSON, Chicago  
"Animal Experimentation in Medicine"

Fraternity, class and ex-service men's luncheons and get-togethers will be held at noon.

SECTION MEETINGS will be held Wednesday afternoon, October 11. There will be no meeting of the Section on Ophthalmology and Otolaryngology this year.

### MEDICAL SECTION speakers will be:

- E. V. Hahn, M.D., and Paul Merrell, M.D., Indianapolis  
"Diagnosis and Treatment of Peripheral Vascular Diseases"
- Irvine H. Page, M.D., and Kenneth G. Kohlstaedt, M.D., Indianapolis  
"The Sulfapyridine Treatment of Pneumonia"
- Robert V. Hoffman, M.D., South Bend  
"The Serum Treatment of Pneumonia"
- Frank H. Green, Jr., M.D., Rushville  
"The Diagnosis and Medical Management of Ectopic Pregnancy"
- Raphael Isaacs, M.D., Associate Professor of Internal Medicine, University of Michigan Medical School, Ann Arbor  
"Diagnosis and Treatment of Pernicious Anemia"
- Paul S. Johnson, M.D., Richmond  
"Fatigue, Its Causes and Treatment"
- Robert G. Moore, M.D., Vincennes  
"The Heart Neuroses, Their Diagnosis and Treatment"
- R. L. Sensenich, M.D., South Bend  
"Diagnosis and Treatment of Peptic Ulcer"

### SURGICAL SECTION:

- Clair Ingalls, M.D., Washington  
"Specific Primary Peritonitis"
- Frank Jennings, M.D., Oaklandon  
"Collapse Therapy of Pulmonary Tuberculosis"
- Willis C. Campbell, M.D., Professor of Orthopedic Surgery, University of Tennessee College of Medicine, Memphis  
"Surgery of the Hip Joint"

### SECTION ON ANESTHESIA:

- Frederick W. Clement, M.D., Toledo  
"Endotracheal Anesthesia"
- Fred A. Thomas, M.D., Indianapolis  
"Complications Following General Anesthesia"
- E. T. Zaring, M.D., Terre Haute  
"Who Should Choose the Anesthetic?"

### ANNUAL BANQUET—WEDNESDAY EVENING, OCTOBER 11

#### SPEAKERS

- NATHAN B. VAN ETEN, M.D., New York, President-elect of the American Medical Association
- DR. GEORGE LANG, Professor of Philosophy, University of Alabama



**THURSDAY, OCTOBER 12, 1939**

7:00 a.m.—House of Delegates breakfast meeting

Annual election of officers

**GENERAL MEETING****JOSEPH E. SCHAEFER, M.D., D.D.S., Chicago**

"Oral and Plastic Surgery"

**PAUL DUDLEY WHITE, M.D., Boston**

"Diagnosis and Treatment of Cardiovascular Emergencies"

**EDMUND L. KEENEY, M.D., Baltimore**

"The Medical and Surgical Treatment of Severe Bronchial Asthma"

**HENRY B. ORTON, M.D., Clinical Professor of Rhinology, New York Polyclinic Medical School and Hospital, New York City, Newark, New Jersey**

"Bronchoscopy as an Aid to Treatment"

**WILLIS C. CAMPBELL, M.D., Professor of Orthopedic Surgery, University of Tennessee College of Medicine, Memphis, Tenn.**

"Internal Fixation of Fractures."

State House Annex, Indianapolis. The applications will be passed upon in the order in which they are received at these offices.

**FEAR OF SOCIALIZED MEDICINE**

Numerous articles have appeared in the papers concerning the Indiana Hospital bill and the action taken by the Bartholomew and Lawrence county medical societies, among them being the editorial which was carried in the Indianapolis *Star* on July 16 which gives the viewpoint of a lay publication in regard to this matter. The editorial is copied herewith, and on the following page is an article by Dean W. D. Gatch of the Indiana University Medical School giving his interpretation of the new law.

The editorial "Fear of Socialized Medicine" follows:

"The threat of socialized medicine in Indiana should be averted in large measure if the state's doctors are alert to curb undesirable developments possible under the law enacted at the last session of the Legislature. This provides for the hospitalization of indigent patients at the Indiana University hospitals. Members of the profession fear that the law includes the seed of socialized medicine.

The Bartholomew County Medical Association held a special meeting to study the problem and to outline a course of action, if that seems expedient. Other county association members should inform themselves of the law's provisions and of any pronounced trend toward centralization of treatment in the Hoosier capital. Outstate doctors and hospitals need not worry about the immediate future. They should have little difficulty rallying so-called home-rule sentiment, however, if proposals are advanced to supply ample Indianapolis accommodations for hospitalization of increasing numbers of outside patients.

"Co-operation and practical business judgment on the part of all concerned should prevent a general transfer of county patients to this city. Since each county must pay for treatment and transportation of persons sent to the I. U. center, the county welfare boards, supervisors of the county general fund and judges should be wary about any extensive transfer of such patients to Indianapolis. Indigents should be treated in county hospitals so long as adequate facilities are available and the cost of such treatment can be held to a minimum.

"Some cases may warrant utilization of the medical center because of unusual conditions which may not be handled to best advantage at home. The I. U. medical center authorities should not be suspected of any selfish interest in the matter. The sole benefit will be derived from the clinical experience which medical students and nurses will get from handling a wide variety of cases."—Editorial, Indianapolis *Star*, July 16, 1939.

## TWO-WEEKS POSTGRADUATE COURSES AT INDIANA UNIVERSITY MEDICAL CENTER

*School Term—1939-1940*

The Committee on Postgraduate Education and Hospitals of the Indiana State Medical Association cooperating with Indiana University School of Medicine, and the Bureau of Maternal and Child-Health of the Indiana State Board of Health, have again announced to the practicing physicians of Indiana their plans for carrying out short intensive postgraduate courses in obstetrics. These courses, as so successfully given last year, will offer intense instructions in obstetrics at Coleman Hospital, Indianapolis, in courses of two weeks each.

The contents of the courses to be given are shown in the attached outline. The dates and schedules for these courses for the school term 1939-1940, are given following:

Two-weeks courses to start on:

September 25, 1939  
October 16, 1939  
November 6, 1939  
November 20, 1939  
December 4, 1939  
January 8, 1940  
January 22, 1940  
February 5, 1940  
February 19, 1940  
March 4, 1940  
March 18, 1940  
April 1, 1940  
April 15, 1940  
May 6, 1940  
May 20, 1940

Applications may be forwarded to the Executive Secretary of the Indiana State Medical Association, or to the Bureau of Maternal and Child-Health,

## ADMISSION OF ADULT PATIENTS TO INDIANA UNIVERSITY MEDICAL CENTER UNDER TERMS OF NEW LAW (HOUSE BILL 74)\*

W. D. GATCH, M.D., DEAN

Indiana University School of Medicine

The function of a medical school demands that it maintain and control hospitals. These furnish facilities for some of the sick poor of the community and in this way meet at least a part of their operating costs.

A satisfactory plan for admitting patients to these hospitals and meeting the cost of their care is difficult to devise. Up until July 1, 1939, patients were admitted to the Indiana University Hospitals from the townships of the state, and the cost of their care in the hospitals was paid from a state appropriation. No direct charge was made to any township sending a patient. Under this plan the Medical Center acquired an enormous waiting list of patients seeking admission. For the last two years the waiting list for the Robert W. Long and William H. Coleman hospitals has contained well over 2,000 applicants.

The existence of this situation was a menace to the Medical Center, a danger to the physicians of the state, and an unpreventable hardship on the sick poor. Many trustees seemed to assume that their responsibility to the patient ended when they placed a patient on this waiting list. The authorities of the Medical Center were under constant pressure from trustees, physicians, and applicants to admit patients out of turn. Furthermore, the method of paying for care of patients in the University Hospitals was unfair to the taxpayers of counties distant from Indianapolis which sent comparatively few patients to the Medical Center.

The dangers of this situation led to the drafting and passing by the last Indiana General Assembly of House Bill 74. In the preparation of this bill, representatives of all interested bodies were consulted and scrupulous care was taken to devise a plan which would be fair to everyone concerned. The bill was presented as a nonpartisan measure and had the almost unanimous support of both branches of the assembly.

Under the terms of the new law, the judge of any superior, circuit, criminal, probate or juvenile court is empowered to commit patients to the University Hospitals who are unable to bear the cost of their medical care after making an investigation of their financial and physical condition. Under the terms of the act the judge is empowered to pay a physician for making a physical examination of patients. The law directs that the administrator of the Medical Center shall keep a careful record of the expenses of the care of patients and shall charge the cost of this care to the county in which they reside.

It is believed that this plan is the best and only feasible solution of the problem at hand. It has the following advantages:

(1) It will reduce the waiting list to manageable size and prevent long and disastrous delays in admission of patients.

(2) It will place the cost of the care of patients on the governmental units which send them.

(3) It will prevent "chiseling" by patients able to pay for private medical care.

(4) It will tend to favor the care of the sick poor in the local community since this community in any event must meet the cost. If the judge, after his investigation, finds that the patient can be satisfactorily cared for in his own county, he will fail to commit him to the University Hospitals, in which event the trustee of the township in which the patient resides must provide for his care by local physicians and hospitals.

(5) From the standpoint of the Medical Center it is hoped that the new law will diminish criticism by patients, physicians and others who seek to have patients admitted, in that it will reserve the beds of the University Hospitals for patients who cannot be cared for elsewhere.

The new plan does not in any way change the policy of the Medical Center except in respect to admission of patients. It also does not in any way relieve the township trustees of the duty imposed upon them by law of caring for the sick poor. Since the capacity of the University Hospitals is limited, the Medical Center makes no pretense of providing hospital care for all the sick poor of the state. The number which it cares for is insignificant compared to the total number of sick poor requiring treatment. Under the old plan of admitting patients public unrest due to the immense waiting list would, in a few years, have forced a great increase in the number of beds at the Medical Center.

The Medical Center has employed a full-time admitting physician whose duties are to see that patients are admitted as promptly as possible, that they are kept in the hospital as short a time as is consistent with good care, and that reports on their diagnosis and treatment are sent promptly to their home physician. Any plan which provides proper safeguards against the admission of patients not eligible to free treatment in the University Hospitals involves a certain unavoidable amount of "red tape." We believe that the present law has reduced this to a minimum and that the judges of the state will be able to administer it fairly and efficiently. Of course, all hospitals must take care of emergency demands for treatment in which they must err on the side of mercy. Demands of this kind have to be met and investigated afterward. We believe that the judges will be glad to take care of this matter.

\* Dr. Gatch prepared this article upon the invitation of the Legislative Committee.



## MARION POSTGRADUATE CONFERENCE HUGE SUCCESS

**GRANT COUNTY MEDICAL SOCIETY MEMBERS PLEASED  
WITH COURSE AND PLAN TO HAVE IT  
REPEATED IN FALL**

The recent postgraduate conference on obstetrics held in Marion was an unqualified success according to Dr. Russell W. Lavengood, secretary of the Grant County Medical Society.

This was a three-day conference presented by the Postgraduate Committee of the Grant County Medical Society working in cooperation with the Committee on Medical Education and Hospitals of the Indiana State Medical Association, the Bureau of Maternal and Child Health of the Indiana State Board of Health and the Department of Postgraduate Education of the Indiana University School of Medicine. This was the first of the three-day regional conferences held under the auspices of these organizations; it was presented at Marion on June 13, 14, and 15.

Attendance at the meetings was highly satisfactory: the morning sessions had an average attendance of 21, the afternoons averaged 34, and the evenings 32. There were two morning meetings, three afternoon and three evening meetings.

The whole program was enthusiastically received and the society is planning to repeat the procedure in October or November, when the subject for the conference probably will be "Pediatrics."

Dr. Lavengood has reported that only the most complimentary remarks have been made about the meetings and that no one had any fault to find. Of Dr. Carl Huber, who conducted the conference on obstetrics, Dr. Lavengood says, "'He came, he saw, and he conquered.' He is a wonderful teacher, his subject matter was well organized, and at no time did one become tired while attending the series of lectures."

It is planned to have quarterly conferences on various subjects in selected regions throughout the State. The contents of the programs and the meeting places will be decided by the members of the local committees on postgraduate education; the other cooperating groups are to act in assisting these groups in preparing programs and securing speakers for the conferences.

## HOTEL RESERVATIONS FOR CONVENTION

Many physicians who will attend the annual convention in Fort Wayne already have made their hotel reservations. If you have not made yours, better do so at once. Chairman of the Committee on Hotels is Dr. L. S. McKeeman, 347 West Berry Street, Fort Wayne.

## UNDER THE CAPITOL DOME

### GROUP HOSPITAL WORK LAUNCHED

The new Governor's hospital insurance committee held its first meeting in the Indianapolis Athletic Club, July twelfth. The committee is to study the possibilities of setting up non-profit community plans for group hospitalization insurance in Indiana. Chairman of the group is Earl C. Wolf, business manager of the Indianapolis City Hospital and president of the Indiana State Hospital Association. Vice-chairman is State Representative Winfield K. Denton of Evansville. Secretary is Dr. Verne K. Harvey, director of the State Board of Health.

The committee was appointed by Governor M. Clifford Townsend who asked the members to draft a plan workable under existing laws. (A bill passed by the 1939 Legislature providing for a hospital insurance program was declared invalid.) The group insurance will be considered with the idea of aiding persons in the low and middle income groups to meet hospital expenses. One plan involves establishing a state insurance agency to operate under the state insurance department; another would provide that sponsors buy a charter formerly used by a mutual insurance company and organize by that procedure; a third would be organization of an agency under the not-for-profit corporations.

The next meeting of the committee will be held in the Indianapolis Athletic Club, August tenth. Those who attended the first meeting, in addition to the officers mentioned, included Albert Hahn, Evansville, secretary of the Indiana State Hospital Association; Dr. N. K. Forster of Hammond and Dr. Cleon A. Nafe of Indianapolis, representing the Indiana State Medical Association; Edgar Blake, Jr., of the Gary Methodist Hospital; George Newbauer, state insurance commissioner; John Cramer, deputy insurance commissioner; Thomas R. Hutson, state labor commissioner; W. Rowland Allen, personnel director of L. S. Ayres & Co.; Dr. Daniel Bower of Indianapolis, and Thurman A. Gottschalk, state director of institutions.

Results of the annual examinations of applicants for licenses to practice in Indiana will be available about Sept. 1. Ruth V. Kirk, executive secretary of the State Board of Medical Registration and Examination, has announced. The examinations were conducted by the full medical board June 20 to 22, inclusive, in the Indianapolis Athletic Club building. A total of 125 applicants took the examination, including 100 graduates of the Indiana University school of medicine. The others were from several different states.

Hoosier highways still are more dangerous than crowded cities and busy towns, according to a

recent report of fatal traffic accidents compiled under the direction of Don F. Stiver, state director of public safety.

The five-month report showed 232 "rural" deaths and 115 urban deaths—a total of 347 for the first five months of this year. This was a decrease from the 378 of the same period of last year when 232 were killed on the highways and 146 in cities and towns, and a still further decrease from 1937 with its 492 deaths (270 on the highways and 222 on city and town streets.)

The report for this year showed that collisions between automobiles cost the most lives, 141. Walking, the report showed, is a dangerous practice, since eighty-seven pedestrians were killed during the period. Pedestrians formed the second highest number of persons killed in traffic mishaps—exceeded only by those killed in collisions between automobiles.

Total deaths in other types of traffic accidents for the first five months of this year follow: railroad train, forty-one; electric car, six; bicycle, four; horse drawn vehicle, one; other vehicle, one; fixed object, twenty-nine; non-collision, thirty-seven.

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Indiana was an unusually healthy state during the second three-month period this year, according to Dr. Verne K. Harvey, secretary of the Indiana State Board of Health. From a general health standpoint the period was described by the official as "very quiet." It followed a quarter-year period (January, February, and March) which witnessed a considerable amount of influenza which increased the incidence of pneumonia. The prevalence of influenza and pneumonia was general throughout the state, with no particular localities especially hard hit.

Dr. Harvey pointed out that the late spring and early summer months always have a low incidence of upper respiratory diseases, and added that during the late summer months an increase in gastro-intestinal diseases could normally be expected. In some years these same late summer months have witnessed a few cases of encephalitis.

There has been an absence of typhoid (in epidemic form) up to July 1 in Indiana. Typhoid, he pointed out, becomes less frequent as the years go by. Better sanitation in city and rural areas is the explanation, he said, and further improvements in sanitation will still further reduce the incidence of typhoid.

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Dr. Verne K. Harvey, secretary of the Indiana State Board of Health, has announced that the board's laboratories examined a total of 1,062 animals' heads for rabies during 1938. Of the heads examined there were 520 that tested positive, and 493 that tested negative. Forty-nine others were unsatisfactory because of the condition of the heads when they reached the laboratories.

Dr. Harvey said that his general observation is that, up to this time, 1939 probably will run no more, and possibly less, than 1938. He pointed out, however, that no laboratory report has been compiled and this statement is purely "general observation."

The largest number of heads which the health department laboratories were called upon to examine last year were those of dogs, the total number being 755. A total of 412 of these dogs' heads gave a positive rabies test, while 308 gave negative tests, and thirty-five were unsatisfactory.

The second largest number of specimens comprised heads of cats suspected of being rabid. A total of 108 were submitted. Twenty-six of these examinations resulted in positive reactions, and seventy-three in negative reactions, while the remaining seven examinations were unsatisfactory.

Laboratory tests for rabies were made on heads of 105 cows, with fifty-eight positive results and forty-seven negative. Of thirty-nine heads of hogs examined, eleven gave positive, twenty-two negative, and six unsatisfactory results. Three positive, and fourteen negative reactions were shown for the seventeen horses' heads sent in for laboratory examination.

Results of examinations made by laboratory technicians on heads of other animals submitted for examination for rabies were as follows: sheep, eighteen specimens, with seven positive, and eleven negative; goats, four specimens, with one positive, and three negative; mules, two specimens, with one positive and one negative; foxes, three specimens, with one positive, and two negative; rabbits, three specimens, with two negative, and one unsatisfactory; squirrels, four specimens, all negative; rats, five specimens, all negative, and mice, one specimen, negative.

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#### WATCH FOR SEPTEMBER JOURNAL

This issue of *THE JOURNAL* is the smallest in size of the twelve issues published during the year, but this is arranged purposely to compensate for the extra pages required in the September convention *JOURNAL*. This year we expect the September issue to be greater than ever. It will contain the usual scientific articles, several of which will be devoted to the special subject of "Mental Diseases," and in addition it will contain the convention features for the ninetieth annual session of the Indiana State Medical Association to be held in Fort Wayne, October 10, 11, and 12. In it will be published the complete program for the annual session and reports of officers and committees. It will reflect the work done by the Indiana State Medical Association, and we hope that every Indiana physician will study the September *JOURNAL* from cover to cover, for there is no better way to become acquainted with the activities of the Association and to realize the scope of the work that is carried on.



## Deaths

ELLIS H. ANDREWS, M.D., prominent Peru physician, was killed in an automobile accident, July seventeenth, when his coupe collided with a truck. Dr. Andrews was sixty-eight years old. He was a county school teacher and county school superintendent, then studied medicine, graduating from the Kentucky School of Medicine, Louisville, in 1901, and had practiced in Miami county for thirty-five years. He had served once as president of his county medical society and several times as secretary-treasurer, in the latter capacity from 1934 to 1938, inclusive. Dr. Andrews was a member of the Miami County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

AUSTIN SAMUEL JOHNSON, M.D., of Indianapolis, died July first, aged forty-two years. Dr. Johnson was medical director of the Indiana Maternal Health League and head physician at the Suemma Coleman Home. He was a member of the staff of the Methodist, City, and William H. Coleman Hospitals. Dr. Johnson was born in Battle Creek, Michigan. He graduated from the University of Michigan Medical Society at Ann Arbor, in 1924. During the World War he became a pilot and later was a flying instructor at fields in Florida and Illinois. He took his obstetrical work at the Lying-in Hospital, University of Chicago Medical School. He was a member of the Marion County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

ORPHEUS E. CURRENT, M.D., of Farmland, died while on a vacation trip in North Carolina, June eighteenth. Dr. Current was sixty-seven years of age. He graduated from the Medical College of Indiana, Indianapolis, in 1897. He had practiced in Farmland more than forty years and was a member of the Randolph County Medical Society, the Indiana State Medical Association, and the American Medical Association.

JOHN K. GEARY, M.D., Fort Wayne, died June twenty-ninth, aged eighty-seven years. He had been ill for more than a year. He graduated from the Fort Wayne College of Medicine in 1887.

FRED P. EASTMAN, M.D., of South Bend, aged seventy-nine years, died June seventeenth. Dr. Eastman had retired from active practice about ten years ago. He graduated from the Wayne University College of Medicine, Detroit, in 1892, and was an honorary member of the St. Joseph County Medical Society and the Indiana State Medical Association, and a member of the American Medical Association.

## News Notes

Fire of unknown origin damaged the office of Dr. Eva Kennedy of Camden, June twenty-fifth.

Miss Inez Jeffries and Dr. David Sluss of Indianapolis were married July first.

Dr. William H. Gallagher of Detroit, Michigan, has been employed as assistant physician at the Logansport state hospital.

The marriage of Miss Alene Daugherty of Paoli and Dr. Wait R. Griswold of Indianapolis took place May fourteenth in Indianapolis. They will live at Madison where Dr. Griswold is on the staff of Cragmont Hospital.

Dr. C. J. Cooney of Fort Wayne was held up as he came from the hospital, July fourth, and was forced at the point of a gun to drive the bandits to a wooded area west of Fort Wayne where he was bound and gagged. The bandits robbed him of \$120 and his watch. The bandits escaped in Dr. Cooney's car and he was unable to free himself for several hours.

Dr. James H. Stygall of Indianapolis has been elected to the board of directors of the National Tuberculosis Association. Dr. Stygall was one of fifty new members elected to the board from the United States, Canada, Puerto Rico, and Hawaii.

Maj. Juan Rodríguez will be in command of the medical detachment of the 152nd Infantry, Indiana National Guard, which recently was disbanded at Columbia City and reorganized at Fort Wayne. Captains Nelson H. Prentiss and John E. Conley of Fort Wayne have been transferred to the new unit.

Dr. John H. Hewitt has been relieved of his duties as manager of the Mudlavia Springs Hotel and will devote his full time to the post of medical director of the institution. Mr. W. A. Meade of Indianapolis has been made business manager of the hotel.

Dr. William E. Thompson, the nation's oldest practicing physician, celebrated his 104th birthday anniversary, July sixth, at Bethel, Ohio.

Dr. Lee J. Maris opened his hospital at Williamsport, July seventeenth. Dr. Maris bought the hospital from Dr. T. E. Ward of Attica a short time ago.

Miss Joan Fais of Columbus, Ohio, and Dr. Charles F. Gillespie of Indianapolis were married in Indianapolis, June fourteenth.

Dr. Wayne Hardin is associated with his uncle, Dr. E. W. Dyar, in the practice of medicine at Ossian, Indiana.

Captain C. E. Stone, of Bedford, was operated upon for gall stones at Fitzsimon's General Hospital, Denver, Colorado, June 14, 1939. He is now on sick leave from Army duty and is convalescing in the mountains of Colorado.

Dr. and Mrs. Robert Owsley and their two children have gone to California where Dr. Owsley will be associated with Dr. Hand in San Francisco in the special practice of ophthalmology and otolaryngology. Dr. Owsley had practiced in Throntown, Indiana.

Dr. Gerry Townsend, president of the New York State Medical Association, was born and reared in New Albany, Indiana, and served a year as assistant to Dr. William N. Wishard of Indianapolis.

Dr. Seth Irwin of Summitville is at present a patient in an Indianapolis Hospital, and he writes to tell us about it and to comment upon the fact that during his stay in the hospital he has been visited by a dozen or more of the staff physicians of the institution, all of which was very much appreciated by Dr. Irwin.

The 18th annual scientific and clinical session of the American Congress of Physical Therapy will be held September 5 to 8, 1939, at the Hotel Pennsylvania in New York City. An intensive instruction seminar in physical therapy for physicians and technicians will precede the congress. Complete information may be obtained by addressing the American Congress of Physical Therapy at 30 North Michigan Avenue, Chicago.

A collection of the books and letters of Sir William Osler, commemorating the 90th birthday anniversary of the noted English physician, were displayed for the public the week of July ninth in the Indiana State Library, Indianapolis. The exhibit was arranged by Mr. Anthony J. Russo for the Indiana Association of the History of Medicine.

Dr. Leigh F. Robinson, president of the Florida Medical Association, is a native Hoosier. He was

born in Martinsville, attended Indiana University and later practiced medicine in Indianapolis for a short time.

Mr. D. W. Gates (correct name William Donald Gates) is no longer connected with the sales department of W. B. Saunders Company, medical book publishers. Mr. Arthur Adams, salesman for Saunders' books in Indiana, has announced that Mr. Gates' services were terminated April 27, 1939.

Dr. Curtis Bland, who has been located at Long Beach, California, for nearly eighteen years, has returned to Greensburg where he practiced medicine from 1905 to 1912. He expects to remain in Indiana now.

The next written examination and review of case histories for Group B candidates for examinations by the American Board of Obstetrics and Gynecology will be held in various cities of the United States and Canada on Saturday, January 6, 1940. Only one Group B, Part I examination will be held this year prior to the final general examination, instead of two as in former years. Applications for admission to these examinations must be on file in the Secretary's office not later than October 4, 1939. Complete information may be obtained by writing to the secretary, Dr. Paul Titus, 1015 Highland Bldg., Pittsburgh, Pa.

#### ELEVENTH DISTRICT MEETING IN OCTOBER

The Eleventh Indiana Councilor District Medical Society will hold a meeting in Marion, October 18, with the following speakers:

Arthur E. Hertzler, M.D., Halstead, Kansas  
(author of *The Horse and Buggy Doctor*)  
C. J. Clark, M.D., Indianapolis  
Charles Wise, M.D., Camden  
Carl P. Huber, M. D., Indianapolis

A forenoon clinic will be held, and the evening entertainment will be provided by the Grant County Medical Society.

The June issue of *Venereal Disease Information*, published by the U. S. Public Health Service, says that the problem of scarcity of trained personnel to carry on the expanding syphilis control program may be solved by four-week-long "refresher" courses. The short course is designed for the health officer and physician whose duties involve many activities in addition to syphilis control work. The chief objective is to provide students with an opportunity for intensive study of diagnostic and therapeutic problems in clinical syphilis and an introduction to the epidemiologic features of syphilis



control. Training is also given in public education methods. The article referred to is entitled "A Four-Week Postgraduate Course in Syphilis Control" and its authors are R. H. Kampmeier, M.D., and E. Gurney Clark, M.D., Department of Medicine, Vanderbilt University School of Medicine.

The United States Public Health Service has issued Supplements 9 and 10 to Venereal Disease Information. Supplement No. 9 is "The Serodiagnosis of Syphilis" containing (Part I) proceedings of the assembly of laboratory directors and serologists in October, 1938, and (Part II) revised technics of the Eagle, Hinton, Kahn, Kline, and Kolmer tests. This is a 224 page book. Supplement No. 10 is "Control of the Venereal Diseases in the United States" including a discussion of present and future plans with regulations of allotments and payments to states and recommendations concerning venereal disease control programs. Both supplements are on sale by the Superintendent of Documents, Washington, D. C., supplement No. 9 selling for thirty cents and supplement No. 10 selling for ten cents.

#### THE AMERICAN CONGRESS ON OBSTETRICS AND GYNECOLOGY

The first American Congress on Obstetrics and Gynecology is to be held in Cleveland the week of September 11, 1939. This meeting is to be attended by the various professional groups interested in the problems of maternal and child care. Physicians, public health workers, nurses, and hospital administrators have been invited to attend and participate in the activities of the Congress.

The success of the Congress is assured by the large advance registration, the comprehensive programs for the various meetings, and the large number of scientific exhibits covering many phases of obstetrics and gynecology. To date over sixteen hundred registrations have been received. It is anticipated that more than five thousand members will attend the meetings.

The Congress will afford the first opportunity to all the professional personnel interested in the problems of obstetrics and gynecology to meet together for a discussion of the various phases of maternal and infant care and to correlate these problems. To this end doctors, nurses, public health workers, and hospital administrators and educational leaders are invited to participate. These separate groups have arranged unusually comprehensive programs in their own special fields and have integrated their problems with those of the other groups.

The general plans of the meetings will provide separate morning sessions for doctors, nurses, and public health workers. Noonday round table discussions will afford an opportunity for more informal consideration of important subjects. The afternoon meetings will bring together all of the members of the Congress in programs of general

interest to the entire group. Evening meetings will be of general interest and will be broadcast. Outstanding individuals outside of the field of medicine will present the social implications of the problems of reproduction to the Congress and the radio listeners.

The medical program will include round tables and discussions of obstetric and gynecologic subjects by leading specialists. Monday morning will be devoted to medical and surgical complications of pregnancy. On Tuesday morning gynecological complications will be presented. The problems of labor will occupy Wednesday morning. Endocrinology in obstetrics and gynecology, including the subject of sterility, will be presented Thursday. The last morning will be given over to a discussion of infection in obstetrics and gynecology. A round table discussion will be offered every day on each of the following subjects: the toxemias of pregnancy, genital infections, obstetric and gynecologic hemorrhages, the fetus and the newborn, anesthesia, analgesia and amnesia in labor. These subjects will be repeated daily under the chairmanship of a clinician who has made outstanding contributions on the subject. This will, therefore, give an opportunity to a maximum number of individuals to attend.

The section on public health will present a similar program. The subjects to be covered in the morning meetings are the following: public health and maternity care, maternal care in the rural areas, federal and state programs in maternal care, maternal care and economics, education and maternal care. The program for the nurses will be equally as comprehensive. The afternoon meetings of the component groups attending the Congress will correlate all the subjects which have been considered at the morning meetings of the special groups.

The scientific exhibit which is to be held in conjunction with the Congress will be unusually comprehensive. New developments in obstetrics and gynecology will be presented and illustrated by diagrams, pictures, models, and moving pictures. Although investigations under way in the large teaching centers will predominate in this exhibit, some of the exhibits will have a wider scope in that they will attempt to portray the relationship of the problems of reproduction to the profession and to the general public. A large commercial exhibit is already assured.

The Congress should stimulate the development of state and local programs for better care for mothers and babies. It should likewise direct public attention favorably toward these problems and their successful solution by the profession. Thus, it should prove to be a force for tremendous good in bringing the public and profession together in the best interests of both.

In order to achieve the greatest good the Congress must have a wide representation. The entire medical profession is cordially invited to membership. The general practitioner, in particular, is

urged to attend for he will find that the meetings will provide him with a week's intensive instruction in all the phases of obstetrics and gynecology. Nurses and hospital administrators should likewise be urged by their medical staffs to attend the meeting, in order that they may participate in the advantages it has to offer.

There is a nominal registration fee of \$5.00 which includes a year's membership in the American Committee on Maternal Welfare. All interested individuals are urged to send their registrations in the American Congress on Obstetrics and Gynecology to the headquarters office, the Annex, 650 Rush Street, Chicago, Illinois. Checks should be made payable to Dr. R. W. Holmes, treasurer. A detailed program of all the meetings and scientific and commercial exhibits will be mailed on request.

For the physician there is only one rule: Put yourself in the patient's place.—*Lord Lister.*

## Coming to Fort Wayne?

(See program on page 430)

### STAG, SMOKER, AND BANQUET

The stag and smoker as part of the entertainment program has become almost a ritual in the annals of the annual sessions of the Indiana State Medical Association. The wives who accompany their husbands to the meetings have learned long ago that the first evening is "papa's evening off." The members look forward to it as a means of renewing old friendships and making new ones—aided and abetted, of course, by other features which help make the occasion a very happy one.

It is the desire of the Fort Wayne Group to make this year's stag the best yet; and from the plans already under way it appears that we will be successful.

The program will be divided into two sections. The first will include—but, on second thought, you will probably enjoy it more if everything that is planned will be in the nature of a surprise. Come up! We want you here! It will be fun!

A. JEROME SPARKS, M.D., *Chairman*  
Banquet and Stag Committees.

P.S. Have you heard that banquet plans include the low rate of \$1.50 per person? And that does not mean any reduction in quality!

## INDIANA UNIVERSITY NEWS NOTES

All but two of the 104 members of the graduating class of the Indiana University School of Medicine have received internship appointments in hospitals throughout the country. The two who have not received internships did not make applications and have other plans.

Sixty-four of the young doctors will remain in Indianapolis for their internships. Twenty-one received appointments from the City Hospital, 21 from the Indiana University Hospitals, 12 from the Methodist Hospital and 10 from St. Vincent's Hospital. Eleven others will do their years of internship in hospitals in Muncie, South Bend, Lafayette, Terre Haute and Hammond.

The remaining 27 doctors will be located during the coming year in hospitals located in the following states: Missouri, Illinois, Ohio, California, Colorado, Minnesota, New York, Louisiana, British Columbia (Canada), Pennsylvania, Washington, Wisconsin and New Jersey.

The following doctors will be at the City Hospital in Indianapolis: Francis E. Carrel, Lebanon; Thomas A. Brady, Gary; I. William Brill, Indianapolis; Harry M. Brown, Cicero; Hubert Collins, Indianapolis; Charles W. Comer, Mooresville; A. Elizabeth Garber, Dunkirk; Charles F. Gillespie, Indianapolis; Howard L. Kahn, Indianapolis; Forest M. Kendall, Marion; Leo Kirch, Indianapolis; Robert W. Kuhn, Wilkinson; Ray D. Miller, Indianapolis; Marion Morris, Indianapolis; Louis Nie, Huntington; Delmar Parke, Muncie; Glynn Rivers, Muncie; Cleo Shullenberger, Indianapolis; James Walker, Indianapolis; Carroll B. Warren, Marshall; Ward B. Warren, Marshall.

Those to be at the Indiana University Hospitals are as follows: Leslie Baker, Aurora; J. Stanley Battersby, East Chicago; Laurel R. Foxworthy, Indianapolis; Ted Grisell, Fort Wayne; Bennett B. Harvey, Bloomington; Gordon Herrmann, Indianapolis; Marietta Houston, Indianapolis; Robert Kepler, LaPorte; Robert McTurnan, Indianapolis; Millard R. Marshall, Clinton; Lawrence E. Maurer, Goshen; Theodore O. Meyer, Bluffton; Paul L. Rieth, Goshen; Robert Salassa, Logansport; Maynard Shiffer, Fort Wayne; John Smith, Lebanon; William Tipton, Brazil; Julius Travis, Jr., Indianapolis; Mary Frances Travis, Indianapolis; Charles E. Walters, Mishawaka; Ralph C. Wilmore, Winchester.

The following will interne at the Methodist Hospital, Indianapolis. Roderic Lee Boling, Ladoga; George Hammersley, Frankfort; Jack Hull, Fowler; George Love, Worthington; Loren Martin, Greensburg; Maurice Mentendiek, Richmond; Robert Scott, Knightstown; William Stafford, Plainfield; David F. Stone, Indianapolis; Raymond Stover, Kokomo; Wesley Ward, Indianapolis; John C. Warren, Winchester.

MAKE YOUR HOTEL RESERVATIONS  
FOR THE ANNUAL MEETING—  
OCTOBER 10, 11, AND 12.  
WRITE TO DR. L. S. McKEEMAN,  
CHAIRMAN, HOTEL COMMITTEE,  
347 WEST BERRY ST.,  
FORT WAYNE, INDIANA



St. Vincents Hospital, Indianapolis, will have the following Indiana University internes: Marvin R. Davis, Greensburg; Lyman Eaton, Indianapolis; Brice Fitzgerald, Hammond; Meredith Gossard, Kempton; Stanley Hammond, Indianapolis; Robert Hansell, Rising Sun; Martin Harshman, Mulberry; Arthur McKinley Jr., Muncie; Willard Smullen, Bentonville; Fred Wilson, Indianapolis.

Other Indiana University appointments for this year are as follows: Robert Acher, West Terre Haute, St. Louis City Hospital, St. Louis, Mo.; Mary L. Bartholomew, Goshen, Women and Children's Hospital, Chicago; Jeraldine C. M. Baumgartner, Fort Wayne, Women's Hospital for Men, Women, and Children, Cleveland, Ohio; Shirley Benham Jr., Leavenworth, Ball Memorial Hospital, Muncie; Irvin Caplin, Lucas County Hospital, Toledo, Ohio; Harriett Clark, Ball Memorial Hospital, Muncie; James Crain, Kansas City General Hospital, Kansas City, Missouri; Earl P. Cripe, North Manchester, General Hospital of Fresno, Fresno, California; Henry Earhart, Mulberry, Presbyterian Hospital, Denver, Colorado; William Gambill, Terre Haute, Ancker Hospital, St. Paul, Minnesota; Louis J. Gilbert, Mishawaka, Epworth Hospital, South Bend; Lloyd M. Headley, Indianapolis, St. Elizabeth Hospital, Lafayette; Kenneth Hill, Washington, Rochester General Hospital, Rochester, N. Y.; Warren V. Hinshaw, Winchester, Charity Hospital, New Orleans, La.; Phillip Hodgins, Richmond, St. Elizabeth's Hospital, Youngstown, Ohio; Russell K. Horsman, Kokomo, Charity Hospital, New Orleans, La.; Irvin H. Itkin, Woodhaven, Kings County Hospital, Brooklyn, N. Y.; William Johnston, Wabash, Vancouver General Hospital, Vancouver, B. C.; Paul A. Jones, Dugger, Vancouver General Hospital, Vancouver, B. C.; Hilbert A. Leininger, Fort Wayne, United States Army; Milton McCall, Hammond, Philadelphia General Hospital, Philadelphia, Pa.; Roy R. McCoy, Williams, City Hospital, Springfield, Ohio; Moris McFall, Anderson, Ball Memorial Hospital, Muncie; Walter McMannis, Lebanon, St. Elizabeth Hospital, Lafayette.

LaVerne B. Miller, Evansville, City Hospital, Akron, Ohio; Anna Louise Milleson, Shelbyville, St. Anthony Hospital, Terre Haute; Delbert J. Parsons, Springfield City Hospital, Springfield, Ohio; A. David Price, Marion, City Hospital, Cleveland; Samuel Richter, Gary, Queen of Angels Hospital, Los Angeles, Calif.; Franklin Rudolph, Lowell, St. Margaret Hospital, Hammond; James Shanklin, Hammond, Tacoma General Hospital, Tacoma, Wash.; Ames R. Templeton, South Bend, Epworth Hospital, South Bend; Milton Tomak, North Hudson, St. Margaret's Hospital, Hammond; Richard J. Trockman, Evansville, Jewish Hospital, St. Louis, Missouri; James R. Ware, Huntington, Wisconsin State General Hospital, Madison, Wis.; Fielding P. Williams, Dale, St. Margaret's Hospital, Hammond; Edwin Wunderlich, Logansport, Jersey City Medical Center, Jersey City, N. J.

Eleven members of this year's graduating class of the Indiana University School of Dentistry have been awarded internships in well-known hospitals throughout the country, Dr. G. D. Timmons, dean of the school, has announced.

The internship list is as follows: Wilber C. Boren, Princeton, Robert W. Long and James Whitcomb Riley Hospitals, Indianapolis; John L. Campbell, Marion, Presbyterian Hospital of New York City; Robert Davis, Lexington, Rochester (N. Y.) Dental Dispensary; Richard Glassley, Fort Wayne, U. S. Marine, Baltimore, Md.; Dale Harvey, Urbana, Ill., Forsyth Dental Infirmary, Boston, Mass.; Luis O. Irizarry, Lares, P. R., Puerto Rico General Hospital; Vernon J. Forney, Valparaiso, U. S. Public Health Service; Wilson Prentice, Jeffersonville, City Hospital of Indianapolis; Walter H. Vandes, Bicknell, U. S. Public Health Service; Gerald Wagner, Osgood, Indiana State Board of Health, and Albert C. Yoder Jr., Goshen, Rochester Dental Dispensary.

#### "SHALL THE PRECINCT COMMITTEEMAN SELECT YOUR DOCTOR?"

EXCERPT OF SPEECH BY ALBERT STUMP, ATTORNEY FOR THE INDIANA STATE MEDICAL ASSOCIATION, BEFORE THE INDIANAPOLIS KIWANIS CLUB ON JULY 5, 1939.

Everyone agrees that medical service should be available to all who need it, whether rich or poor. The quality of that service should be of the very best. It should be obtainable promptly upon the call of the patient or of those responsible for the care of the patient. But in order that competent medical service should be available to anyone, there must be a medical profession made up of men and women of superior abilities. If conditions ever become such that people of superior abilities are not attracted to the medical profession, then good medical service will not be available either to the rich or to the poor.

While the cost of medical care has been the object of considerable study and has aroused a keen solicitude for the medical problems of the poor, yet the medical profession has not confined its services merely to the rich. The vital statistics are not made up from the records of deaths only among the rich and prominent. When the data is collected to show what the year's work of that grim leveler called Death has been, the most obscure and unfortunate counts exactly as much as the most prominent and most fortunate. The total of these figures discloses an amazing reduction in mortality rates and an equally amazing result in the increase of the average length of life. The medical profession has not failed in its social obligations. The very nature of the profession impels the members of it into a genuine fight against sickness and death. Human beings naturally are thrilled by the consciousness of achievement. Achievement in the field of medi-

cine is the relief of sickness and the lengthening of life.

In that profession more clearly than in any other the whole of society, in every department of it, has an important stake. Individual initiative should not be hampered, particularly in that field. But more than that, the individual initiative should be the individual initiative of the keenest and most vigorous minds. That cannot be had unless the profession is such as to attract such minds.

That attractiveness need not be in the amount of money that may be made. It has not been so in the past. The richest men of the community are not the doctors. They are the men who have succeeded in business. The attractive features of the medical profession should be in the spirit of independence with which they proceed in the rendering of their services; in the consciousness of the dignity of the calling; in the freedom with which special lines of interest that appeal to them may be followed; and in the opportunity the profession affords for one to make his own place in the life of his community. All this is destroyed where government takes over the supplying of medical services to the whole general population. When that occurs, by the very nature of things, the doctor rises in his profession as a result of attending political caucuses and developing a kind of impudent eloquence in political activities. He does not rise by the activities, which to a genuine doctor become thrilling, of poring patiently and intently over what is taking place in a test tube; or over some article prepared with infinite patience to show the result of a multitude of cases from which some generalization may be drawn which he can apply in the case of some man or woman in the City Hospital, where he will get not one cent of pay for his work—but may have a glorious thrill of achievement in seeing a patient walk out whole again.

### SOUTHWESTERN INDIANA POSTGRADUATE CONFERENCE ON OBSTETRICS

Evansville

August 8, 1939

Program will be presented at St. Mary's Hospital, beginning at 9:00 a. m., with case presentations by various Evansville physicians, afternoon lectures by Dr. Carl P. Huber, Indianapolis, and an evening lecture by Dr. Nicholson J. Eastman, Professor of Obstetrics, Johns Hopkins Hospital.

This program will be presented especially for physicians from Daviess, Martin, Posey, Gibson, Warrick, Spencer, Dubois, Pike, Vanderburgh, Knox, Orange, and Perry counties, but any interested physician in Indiana is cordially invited to attend.

## SOCIETIES AND INSTITUTIONS

### INDIANA STATE MEDICAL ASSOCIATION EXECUTIVE COMMITTEE

June 11, 1939.

Roll call showed the following present: \*C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; \*Karl Ruddell, M.D.; M. A. Austin, M.D.; A. F. Weybacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Luncheon guests: \*E. O. Asher, M.D., chairman, State Board of Health Liaison Committee to Deal with Social Security Act; H. B. Mettel, M.D., State Board of Health; Dan Bower, M.D.; M. V. Kahler, M.D., members of Liaison Committee with Indiana State Department of Public Welfare; Herman Baker, M.D.; L. D. Carter, M.D.; V. K. Harvey, M.D.; L. T. Rawles, M.D., and C. B. Parker, M.D., representing D. V. Cameron, M.D., and E. M. VanBuskirk, M.D., respectively; State Department of Public Welfare officials: Thurman A. Gottschalk, administrator; O. W. Greer, M.D., director, Division of Services to Crippled Children; Charles B. Marshall, director, Division of General Administration; George C. Stevens, M.D., director, Division of Medical Care; Dudley Smith, Division of Information and Public Relations, and C. W. Rutherford, M.D., State Supervising Ophthalmologist, Blind Assistance Section of the Division of Public Assistance. (\*Also members of the Public Welfare Liaison Committee.)

The statements of receipts and expenditures for May for the Association committees and THE JOURNAL were approved.

#### Membership Report

Number of members on May 31, 1939-----	3,047
(95 honorary members)	
Number of members on May 31, 1938-----	2,984
Gain over last year -----	63
Number of members Dec. 31, 1938-----	3,086

The 1938 A.M.A. directory lists 4,081 physicians in Indiana. This is an increase of 56 physicians over those listed in the 1936 directory. The members of the Committee spoke of the concentration of physicians in the larger centers.

#### 1939 Annual Session at Fort Wayne

*Scientific exhibit.* The executive secretary is to go to Fort Wayne within the next month to make final arrangements for housing these exhibits. Following a conference with Dr. C. G. Culbertson, chairman of the scientific exhibit committee, arrangements have been made for him to contact Drs. R. W. Wilkins and M. H. Draper, co-chairmen of the local committee on scientific exhibits, in regard to housing the exhibits.

Request of the Fort Wayne Medical Society that the badges for the state meeting carry the seal of the Fort Wayne Medical Society brought before the Committee. The Committee approved the suggestion of having the Fort Wayne Medical Society seal on the badges along with the seal of the Indiana State Medical Association.

*Hall of Health.* Letter received from the Fort Wayne Medical Society outlining the plan for a Hall of Health as a feature directed particularly for the education of the general public. The Committee wholeheartedly approved the Hall of Health plan and gives permission to the Fort Wayne Medical Society to use the name of the Indiana State Medical Association in conjunction with the name of the Fort Wayne Medical Society as endorsing the project.

#### Legislative, Legal and Social Security Matters

##### National

Wagner health bill, S. 1620. Reports on hearings upon this bill contained in the June 10, 1939, issue of *The Journal of the American Medical Association*. The Com-



mittee expressed its appreciation over the fact that the Indiana representatives who spoke for the American Medical Association, Dr. R. L. Sensenich and Dr. F. S. Crockett, conducted themselves in such an outstanding manner at the hearing.

According to the *New York Times*, Senator Murray made the statement that probably nothing will be done in regard to this bill at this session.

Resolutions of the Miami County Medical Society and the Sixth District Medical Society against the Wagner bill brought to the attention of the Committee.

Report made that the interns and resident staffs of hospitals are not informed on the Wagner bill. The Committee suggested that this information be brought to the attention of Dr. C. J. Clark, councilor of the Seventh District, who is conducting a course in medical economics at the University. The Committee feels that it might be well to have a lecture under the auspices of the local county medical society to which interns and resident staffs of hospitals are invited, at which information concerning the Wagner bill be given by Dr. Clark.

The attention of the Committee was called to an editorial in the *New York Times* which stated that the Wagner bill is not the answer but that the medical profession should itself back a program which would help solve the problem of medical care for families of small incomes. The editorial reads in part as follows:

"Organized medicine has not taken the leadership which the public was entitled to expect of it in the matter of solving the problem of medical care for families with small incomes. But it cannot be said that a satisfactory solution of this problem is provided by the Wagner Health Bill, now before Congress."

#### Farm Security Administration

Attention of the Committee was called to the fact that the American Medical Association adopted in substance the so-called Indiana plan in dealing with the Farm Security Administration. The heart of this plan is that the State Association will lay down fundamental principles which may aid the county medical societies in working out a program for the care of Farm Security clients if and when the local societies desire to work out such a program.

#### The "Indiana Plan"

Report on the A.M.A. meeting and the Indiana exhibit published in the June issue of *THE JOURNAL*. The general consensus was that the exhibit was outstanding and was well worthwhile.

#### Organization Matters

*Complaint against giving names of diabetic patients.* Letter received from the Terre Haute clinic making complaint against a request of a physician who is asking the clinic to send him names of their diabetic patients in order to make a survey concerning the status of this disease in Indiana. This letter was given to Albert Stump, the attorney of the Association, with a request that he give his opinion as to the legality of clinics giving names of patients, such as was requested by the doctor against whom the complaint was filed.

Copy of the resignation of Dr. A. M. Mitchell as chairman of the Committee on Secretaries' Conference to Dr. E. M. VanBuskirk, president of the Indiana State Medical Association, received and noted by the Committee. It was the feeling of the Committee that this was a matter between Dr. VanBuskirk and Dr. Mitchell, and the president, if he so desires, has the right to appoint a successor to fill the place left vacant by Dr. Mitchell, to serve until a new chairman can be appointed by the Secretaries' Conference. The present Secretaries' Conference Committee is composed of the following members: R. L. Hane, Ft. Wayne; P. E. Yunker, Evansville; J. V. Cassady, South Bend; R. W. Bruner, Jeffersonville; D. A. Covalt, Muncie.

*Conservation of Vision Committee.* Letters received from Dr. J. V. Cassady and Dr. Carl J. Rudolph, both of South Bend, stating that the Indiana Academy of Ophthalmology and Otolaryngology at its recent meeting had passed the following resolution:

"That the State Academy confer with the committee in the State Society for Conservation of Vision regarding the formation of a permanent committee comprising three men from each of the two bodies. One man to be elected for a term of one year, two for terms of two years, and three for terms of three years. Then following expiration of respective terms, the new members shall be elected for terms of three years, thus providing at all times for four experienced men on the committee. The three men appointed by the Academy are: Dr. C. J. Rudolph, Dr. C. P. Clark and Dr. Noel S. McBride."

The Committee discussed this question and said that the only way this could be done would be through action of the House of Delegates. The Committee assigned the letters to Albert Stump, attorney for the Association, asking him to give an opinion as to whether or not it would be necessary to amend the Constitution or change the By-Laws of the State Association in order to create such a committee as proposed in the resolution of the Academy.

#### State Board of Health

Report on standards for maternity homes and maternity hospitals prepared by the Liaison Committee of the Indiana State Medical Association to the Bureau of Maternal and Child Health of the Indiana State Board of Health in cooperation with the Children's Division of the Indiana State Department of Public Welfare, made by Dr. E. O. Asher, chairman of the liaison committee. After hearing Dr. Asher's report the Committee complimented the chairman upon the thorough manner in which the job was done and officially approved the report in principle. An article in regard to this report is to be carried in the July issue of *THE JOURNAL*.

Informal suggestion made that the same type of work that has been done for maternity hospitals should be done for so-called nursing homes throughout the State.

#### Group Hospitalization and Voluntary Health Insurance

Attention of the Committee called by Dr. Austin to the new General Motors Corporation plan for hospital care and surgical benefits which is to be nationwide. According to the article which appeared in the *Anderson Herald* on Friday, June 9, the plan calls for hospital benefits up to \$4.00 a day to run as long as 70 days for a single disability. In addition, benefits are included to defray costs of surgical operations up to \$150.00 for a single operation. The cost to General Motors employees will be 75 cents a month. The new program is an expansion of the General Motors present group life-health-accident insurance plan that has been in operation for thirteen years. The Committee authorized the forwarding of this article to Dr. N. K. Forster, chairman of the Permanent Study Committee on Health Insurance and National Medical Situation of the State Association.

Dr. Karl Ruddell told the Committee of the organization which was being perfected in Indianapolis for a group hospitalization set-up which would comply with the present insurance laws of the state. Albert Stump, attorney for the Association, Dr. M. V. Kahler and Dr. Dan Bower are active in sponsoring this movement which has gained much momentum in Indianapolis. A series of meetings have been held with the personnel managers of large Indianapolis concerns and the \$25,000 deposit necessary has been assured by large groups of employers in the city. It is felt that this plan should be of great interest not only locally but to the entire state because if this plan succeeds in Indianapolis it probably will expand to a statewide program.

It was reported that Dr. W. U. Kennedy of Newcastle is making arrangements with the Business Men's Assur-

ance Company of Kansas City for a group hospitalization program at Newcastle.

Information in regard to the Chicago Medical Society's hospitalization plan for its own members given to each member of the Committee.

Copies of bills passed by the Michigan State legislature covering group hospitalization and voluntary group medical care in that state brought to the attention of the Committee and turned over to Albert Stump for study and comment at the next meeting of the Executive Committee. The significant part of the Michigan legislation is that no hospital group or medical care group can be formed in that state without supervision, control and approval of the Michigan State Medical Society.

#### Venereal Disease Control

Recent report of the Committee on Syphilis Control which was assigned by the Committee to Dr. Weyerbacher for study was approved by Dr. Weyerbacher and the recommendation made that it be approved by the Executive Committee. Approval taken by consent.

Dr. V. K. Harvey stated that the newspaper article which appeared recently in regard to social disease prevention plans as WPA projects is somewhat misleading. The fact is that the State Board of Health is cooperating in a WPA project whereby clerks may be made available for use at the present social disease clinics which are operated in twenty-three of the larger centers in Indiana, such as Fort Wayne, Evansville, and South Bend. He stated that in gathering statistics and in keeping records these clerks will be of great benefit in conducting these clinics. He stated that these clinics had been established for a number of years and that there is no new expansion of clinics contemplated by the WPA. These local clinics are established only at the request of the local county medical society and many of them at the present time are short on clerical help. The project is merely to assist the doctors who are now running the clinics. The figure of \$82,000 mentioned in the article is far more than that which will be expended for this work, Dr. Harvey said.

#### Postgraduate

Plans for the three-day postgraduate conference in obstetrics at Marion, Indiana, and for the southwestern Indiana postgraduate conference which is to be held one day each month starting August 8, presented to the Committee.

#### Resolution Regarding Expenses of Committees

It was moved by Dr. Austin, seconded by Dr. Ruddell, that the Executive Committee recommends to the House of Delegates and to the Council that traveling expenses for all committees for special called meetings be paid and that this action be made retroactive for one year.

#### Medical Economics

Replies to letter written by M. R. Ray, state compensation officer of the Works Progress Administration, and sent out by the Executive Committee, received from a number of societies. Mr. Ray requested that local county medical societies make out lists of physicians who are willing and competent to take care of WPA work.

#### Suggested Resolutions to Amend the Constitution and By-Laws of the State Association

In accordance with instructions of the Executive Committee the following resolutions have been prepared by Albert Stump suggesting changes in the Constitution and By-Laws of the Association:

(1) *Constitution*. "BE IT RESOLVED That Article II, of the Constitution of the Indiana State Medical Association be amended by striking out the words, 'to guard and foster the material interests of its members and'."

(2) *By-Laws*. "BE IT RESOLVED That Chapter IV, Section 2, of the By-Laws of the Indiana State Medical Association be amended by striking out the

period after the word 'delegate', in line 8 of the said Section, and substituting a comma therefor, and then by adding after the comma the following:

'except that where a component society is made up of physicians of more than one county, each county shall be entitled to at least one delegate to be selected by the physicians residing in such county.'"

Following the regular meeting of the Executive Committee the members of the Committee went into joint session with the members of the Liaison Committee of the Indiana State Medical Association with the Indiana State Department of Public Welfare and representatives of the State Department of Public Welfare.

The next meeting of the Executive Committee is to be held at Lake Webster the fourth Sunday in July. Details in regard to the place and time of meeting are to be sent to the headquarters office by Dr. Austin in order that full information concerning the meeting may be given to all members of the Committee.

#### INFORMAL REPORT ON THE JOINT MEETING OF THE LIAISON COMMITTEE WITH THE INDIANA STATE DEPARTMENT OF PUBLIC WELFARE AND REPRESENTATIVES OF THE STATE DEPARTMENT OF PUBLIC WELFARE, JUNE 11, 1939

A luncheon meeting of the Liaison Committee of the Indiana State Medical Association with the Indiana State Department of Public Welfare was held at the Columbia Club in Indianapolis, on Sunday, June 11, 1939. Those present were:

#### Liaison Committee with Indiana State Department of Public Welfare:

(Those present are marked \*)

\*Herman Baker, M.D., Evansville

\*Karl Ruddell, M.D., Indianapolis

\*C. A. Nafe, M.D., Indianapolis

R. L. Sensenich, M.D., South Bend

C. J. Clark, M.D., Indianapolis

I. C. Barclay, M.D., Evansville

\*E. O. Asher, M.D., New Augusta

\*L. D. Carter, M.D., Indianapolis

Don F. Cameron, M.D., Fort Wayne

\*V. K. Harvey, M.D., Indianapolis

E. M. VanBuskirk, M.D., Fort Wayne

\*L. T. Rawles, M.D., Ft. Wayne, representing Dr. Cameron

\*C. B. Parker, M.D., Ft. Wayne, representing Dr. VanBuskirk

#### State Department of Public Welfare Officials:

\*Thurman A. Gottschalk, Administrator

\*Charles B. Marshall, director of Division of General Administration

\*O. W. Greer, M.D., director of Division of Services to Crippled Children

\*C. W. Rutherford, M.D., State Supervising Ophthalmologist, Blind Assistance Section of the Division of Public Assistance

\*George C. Stevens, M.D., director of Division of Medical Care

\*Dudley Smith, Division of Information and Public Relations

#### Executive Committee:

\*C. H. McCaskey, M.D., Indianapolis

\*M. A. Austin, M.D., Anderson

\*A. F. Weyerbacher, M.D., Indianapolis

E. M. Shanklin, M.D., Hammond

\*Albert Stump, Indianapolis

\*T. A. Hendricks, Indianapolis

#### Members of Indianapolis Medical Society:

\*H. B. Mettel, M.D., chief, Bureau of Maternal and Child Health, State Board of Health

\*Dan L. Bower, M.D., representative from Marion county



\*M. V. Kahler, M.D., chairman, Legislative Committee, Indianapolis Medical Society

A short meeting of the members of the State Liaison Committee preceded a luncheon meeting for the entire group. During this period a tentative program for general discussion was developed. After the luncheon the Chairman made a brief preliminary statement giving the reasons for the meeting. Mr. Gottschalk answered with a generalized statement of the attitudes and problems of the Welfare Department with regard to medical care.

**Request that Division Name Be Changed**

The question was brought up as to whether "Division of Medical Care" is the proper name for the division of the Welfare Department whose duties are the care of institutional patients with particular attention toward mental hygiene problems. Many members of the Liaison Committee thought that inasmuch as this division dealt almost entirely with mental hygiene, the name, "Division of Medical Care," was too broad and might lead to misconception as to the functions of this division. This was discussed by Mr. Gottschalk, Dr. Stevens and Mr. Marshall. It was pointed out in the discussion that the specific words "Medical Care" were used in the act creating the Welfare Department but it was generally assumed that perhaps it might be possible to change the designation of this division. It developed during the course of the discussion that the Committee on Mental Health of the State Medical Association had recommended that the name be changed to the "Division of Mental Health."

**Inspection of Maternity Hospitals**

The next subject for general discussion was the inspection of maternity hospitals over the state. This inspection was conducted by the Welfare Department under the direction and, one might say, supervision of the State Board of Health Liaison Committee to Deal with the Social Security Act. A summary was made by Dr. Asher who is chairman of this committee. It was an excellent report, covering in great detail the whole problem of maternity hospitals, nursing homes, and boarding homes for children, etc. Dr. Asher submitted this report to the Executive Committee for ratification and it was so ratified during the course of the meeting. Dr. Asher's report was discussed at length by Doctors Nafe, Mettel, Carter, Asher, Mr. Marshall and others. A summary of this report is to appear in The Journal of the Indiana State Medical Association.

**Complaint Against Blind Assistance**

The next subject for discussion was the question of the reference of certain cases, particularly diseases of the eye. This was discussed at length by Dr. Rutherford, State Supervising Ophthalmologist for the Welfare Department. Participating in the discussion were Doctors McCaskey, Nafe, Austin, and again in closing Dr. Rutherford. It was decided that this matter be referred to the Welfare Department and that an attempt be made to work out a satisfactory adjustment of the situation.

**Conclusion**

No doubt everyone present at this joint meeting has a much better understanding of the other fellow's problems than before the meeting and it is quite certain that such get-together meetings between the groups here represented are of very definite value to both groups. It is hoped that as problems develop, more of these round table discussions will be had for the purpose of clarifying the minds of all concerned regarding the various angles of such problems.

HERMAN M. BAKER, M.D., *Chairman,*  
Liaison Committee with Indiana State  
Department of Public Welfare.

**BUREAU OF PUBLICITY**

June 5, 1939.

Present: W. N. Wishard, M. D., chairman; F. M. Gastineau, M. D.; C. F. Thompson, M. D., and T. A. Hendricks, executive secretary.

The release, "Middletown Modernizes Medicine," published in Friday, May 12, papers, approved. The release, "Are You Going to the Fair?," approved for publication in Wednesday, June 14, papers.

Suggestions for future releases:

"Opening of Fishing Season."

"Appendicitis and Laxatives."

Gannett Committee material.

Suggestion made that if the Bureau has four releases a month, three of these should be on scientific subjects and one on an economic subject.

Request for speaker:

June 14—Johnson County Medical Society, Franklin. Subject, "Anemias."

Reports on medical meetings:

May 17—Parke-Vermillion County Medical Society, Clinton. "The Anemias." (7 or 8 present.)

District meetings attended by executive secretary:

May 3—Third District—Huntingburg

May 5—Fifth District—Terre Haute

May 10—Eleventh District—Peru

May 11—Ninth District—Lebanon

May 23—Twelfth District—Decatur

May 24—Second District—Bloomington

May 25—Fourth District—Columbus

June 7—Sixth District—Connersville

June 8—First District—Princeton

Eighth District meeting to be held June 14 at Anderson.

Report made that the "Middletown Modernizes Medicine" display received many favorable comments at the American Medical Association meeting at St. Louis.

Newspaper article referred to the Bureau by the Executive Committee in regard to "a semiannual postgraduate course in optics, physiological optics and refraction for physicians." The Bureau authorized the following statement to be made concerning so-called postgraduate clinics:

"The attention of the Bureau was called by the Executive Committee to a newspaper article that appeared in The Indianapolis Sunday Star of May 7, 1939, referring to a postgraduate course in optics, physiological optics and refraction, held by two physicians at a sanitarium. Postgraduate meetings and courses are supposed to be authorized by medical education institutions or by duly organized medical societies. When not conducted under the auspices of proper medical organizations or institutions, such courses suggest the fact that they are held purely for the benefit of the individuals calling the meeting. The Bureau of Publicity, in reviewing the article sent to it by the Executive Committee, feels that such meetings conducted by individuals are decidedly objectionable. If a local society or any branch of the Indiana State Medical Association chooses to hold such meetings under the authority of such an organization, it has a right to do so, but in this particular instance it seems from the newspaper clippings that such courses naturally may be construed as in a large degree promoting individual advantage."

The following questions were received from a secretary of a county medical society:

"What does the state society do about doctors trying to do major surgery without any training whatsoever, and with doctors having big neon signs?"

Some time ago the Bureau of Publicity made the following statement in regard to neon signs:

"A great deal depends upon the size, the location, and the prominence of such signs. A sign does not have to be a neon sign to be in bad taste. Lettering on an office window or a door which is over-conspicuous in size or in coloring is bad taste and hence

unethical. If all the physicians in a town use a sign of the same size it would not be unethical, but if one physician used a neon sign and the others did not use neon signs, that would give undue prominence to one physician's name and hence the Bureau feels that the use of a neon sign in this instance would be a breach of local custom and therefore unethical."

This information had already been sent to the secretary of the county medical society who had asked for information in regard to neon signs. The secretary was instructed to write the following additional statement to the local county medical society secretary in answer to the first part of his question:

"When a physician who has had no training in surgery, such as is indicated in your question, attempts to do any surgery, said physician should be brought before the board of censors of the local society and warned of the dangers involved. If he persists, the society should determine what action to take relative to his continued membership in the society.

"Such matters should be called to the attention of the official board of the hospital where said operations are performed and such communications should convey to the hospital board the disapproval of the local medical society.

"If the results of the above efforts are not satisfactory, attention concerning this matter should be called to the councillor of the district."

The following letter was received from the secretary of the Fort Wayne Medical Society in regard to the proposed "Hall of Health" exhibit to be held under the auspices of the Fort Wayne Medical Society at the time of the annual session of the State Association in October:

"The purpose of this letter is to acquaint you with some of the plans of the local publicity committee for the time of the State Association meeting. Naturally we as a committee would like to see the coming meeting a most enjoyable and successful one in every respect. In view of this we present our plans for a "Hall of Health" which is intended primarily for lay consumption. The details which have been arranged thus far I shall enumerate.

"As a site we have secured use of the Allen County Court House, which you may remember is centrally located and as well a beautiful dignified edifice. Naturally in the use of this building we must confine ourselves to educational material and not obvious propaganda.

"The material for display of interest to the public which we have definitely secured includes such as Wyeth's picture of Alexis St. Martin and Beaumont, an oil reproduction of The Doctor, an iron lung, and the glass replica of the Transparent Woman. These with educational movies and displays should be a worthy place for lay visit and as you know a place which should provide tremendous publicity at least for our local public.

"Naturally we should like to use the name of the Indiana State Medical Association in connection with this effort. If however the executive committee feels that this Hall of Health is for local purposes only then we shall confine the endorsement to the Fort Wayne Medical Society. I do feel that this should be a most worthwhile and interesting adjunct to the scientific session. Furthermore if our plans are fully realized I believe that nothing but credit may come to the Indiana State Medical Association by endorsement of this work."

Attention of the Bureau was called to the "Day in Indiana" column, written by Maurice Early, in the Monday, June 5 issue of *The Indianapolis Star*, in which he quoted from the editorial contained in the June *JOURNAL* of the Indiana State Medical Association entitled, "The Gay Nineties."

June 22, 1939.

Present: W. N. Wishard, M.D., chairman; F. M. Gastineau, M.D.; C. F. Thompson, M.D., and T. A. Hendricks, executive secretary.

The release, "Health Hints for Hoosier Fishermen," approved for publication in Thursday papers, June 29.

Request for speaker:

June 21—Parke-Vermillion County Medical Society, Clinton. Speaker on a gynecological subject selected.

Letter received from the secretary of the Fort Wayne Medical Society in regard to radio programs during the state meeting. The Bureau suggested that speakers upon these programs who come from out of the state talk on scientific subjects, while talks by men within Indiana should be limited to the officers of the state, district and local medical societies, and these officers should discuss general medical economic subjects rather than scientific subjects.

The following resolution adopted by the Medical Society of New Jersey in regard to radio broadcasts was brought to the attention of the Bureau:

"RESOLVED, That the Joint Committee on Professional Relations request the Medical Society of New Jersey and the New Jersey Pharmaceutical Association to enter a formal protest against the prescribing of medicines and the giving of medical advice on the radio, with the exception of such broadcasts on health matters as are given under the auspices of recognized associations of licensed physicians or Federal, State, and Local Health Departments; and be it further

"RESOLVED, That such protest be sent to the broadcasting companies and the Federal Communications Commission."

The Bureau recommends that a similar resolution be presented at the state meeting.

The pamphlet entitled, "Economics and the Ethics of Medicine," received from the American Medical Association, brought to the attention of the Bureau of Publicity. The Bureau suggested that a copy of this pamphlet be sent to the secretary of each county medical society.

A letter was received from the historian of the Association in regard to the material which he has on file. The Bureau suggested that a copy of this historian's report be carried in the annual report of the Bureau to the House of Delegates.

Material in regard to the smallpox immunization campaign in New York State brought to the attention of the Bureau and turned over to a member of the Bureau for study and a report at the next meeting of the Bureau.

The Bureau discussed plans for memorializing Dr. John S. Bobbs, Dr. John L. Richmond, Mrs. Jane Todd Crawford, and Mrs. Z. (Mary E.) Burnworth. The Bureau suggested the following two methods of memorializing these pioneers:

1. Place a bronze tablet to them in the medical school building.
2. Place a stone marker at the graves of each of these pioneers.

The Bureau authorized sending a copy of this part of the minutes to the chairman of the Pioneer Memorial Committee of the Woman's Auxiliary to the Indiana State Medical Association.

The chairman of the Bureau made the following statement concerning the Principles of Medical Ethics:

"I am growing old and I won't have a chance to give you my views very long, but there is no time when we should fail to emphasize the Principles of Medical Ethics. We should state these principles over and over again. Each year a new group of young men enter the practice of medi-



cine. Some of them naturally are in financial difficulties and some few of them may be willing 'to take a chance' in regard to the principles of ethics. Hence, we should never fail, both upon behalf of these younger men and the men who are already established in practice to emphasize the controlling influence of medical ethics on medical practice which is our only guard upon behalf of the public against lowering medical standards."

## LOCAL SOCIETY REPORTS

**Clark County Medical Society** held a meeting, June twenty-first, at the Strauss Hotel in Jeffersonville. Following a chicken dinner, the speaker of the evening, Dr. Overstreet, of Louisville, Kentucky, talked on "Severe Hemorrhage of the Upper Abdominal Tract." A general discussion followed.

There will be no meetings of the society during July and August. Meetings will be resumed in September.

After sixteen years of practice in Indiana, Dr. Samuel S. Foss, president of the Clark County society, is returning to his home at Valley Station, Kentucky, where he had practiced before coming to Indiana. Members of the Clark County society have been invited to meet at Dr. Foss' Kentucky home in October.

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**LaPorte County Medical Society** held a meeting at the American Restaurant in LaPorte, June fifteenth. Dr. Harry E. Mock, of Chicago, talked on "Treatment of Skull Fracture." Attendance numbered thirty.

\* \* \*

**Muncie Academy of Medicine** members held a meeting at Ball Memorial Hospital, June twenty-seventh.

\* \* \*

**Owen County Medical Society** members held a meeting in the medical society room of the county court house in Spencer, May nineteenth. This was a business meeting, with four members in attendance.

\* \* \*

**Tri-County Medical Society** held a meeting at Odon, June twenty-seventh, with fifteen in attendance. Dr. H. G. Coleman of Odon presented a paper on "Diarrheas in Infants."

\* \* \*

**Vigo County Medical Society** held its regular meeting, May ninth, when the following resolutions were unanimously adopted:

To the House of Delegates of the Indiana State Medical Association:

Whereas, Dr. Albert M. Mitchell has been secretary of this society for the past nineteen years and has maintained it as one of the most progressive and pioneering component societies in the State,

And, whereas, Dr. Mitchell is held in the warmest esteem by his fellow practitioners in Terre Haute, is well known to the members of the Indiana State Medical Association because of his numerous activities in the State Association, particularly as chairman of the Secretaries' Conference, and is held in high regard within the circle of officers of the American Medical Association,

Therefore, Be It Resolved, that we submit his name for consideration at the Fort Wayne session for election to the office of the next president-elect.

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## BOOKS

RECENT ADVANCES IN MEDICINE. G. E. Beaumont, M.A., D.M., F.R.C.P., physician to Middlesex Hospital, London; and E. C. Dodds, M.V.O., D.Sc., M.D., Courtland Professor of Biochemistry, University of London. 9th edition. 42 illustrations. 431 pages. Cloth. Price \$5.00. P. Blakiston's Son and Co., Inc., Philadelphia, Pa.

\* \* \*

DISEASES OF THE NOSE AND THROAT. By Charles J. Imperatori, M.D., F.A.C.S., professor of otolaryngology, New York Polyclinic Medical School and Hospital; and Herman J. Burman, M.D., F.A.C.S., adjunct professor of otolaryngology, New York Polyclinic Medical School and Hospital. 726 pages; 489 illustrations. Second edition, revised. Cloth. Price \$7.00. J. B. Lippincott Company, Philadelphia, 1939.

\* \* \*

VARICOSE VEINS. By Alton Ochsner, B.A., M.D., D.Sc., F.A.C.S., William Henderson Professor of Surgery and Director of the Department of Surgery, School of Medicine, Tulane University of Louisiana, New Orleans, La.; and Howard Mahorner, M.D., M.S., F.A.C.S., assistant professor of surgery, School of Medicine, Tulane University of Louisiana, New Orleans, La. 147 pages with 50 text illustrations and two color plates. Cloth. Price \$3.00. C. V. Mosby Company, St. Louis, 1939.

\* \* \*

MEDICAL STATE BOARD EXAMINATIONS. Topical Summaries and Answers. An Organized review of actual questions given in medical licensing examinations throughout the United States. By Harold Rypins, A.B., M.D., F.A.C.P., secretary, New York State Board of Medical Examiners. Fourth edition, revised. 448 pages. Cloth. J. B. Lippincott Company, Philadelphia and London, 1939.

\* \* \*

TREATMENT BY DIET. By Clifford J. Barborka, B.S., M.D., F.A.C.P., Department of Medicine, Northwestern University Medical School, Chicago; formerly consulting physician, The Mayo Clinic. Fourth edition, revised. 691 pages. Illustrated. Cloth. J. B. Lippincott Company, Philadelphia and London, 1939.

\* \* \*

SYPHILIS. And Its Accomplices in Mischief: Society, The State and the Physician. By George M. Katsanos, M.D. Privately printed in Athens, Greece, 1939.

\* \* \*

MANUAL OF DISEASES OF THE EYE. For Students and General Practitioners. By Charles H. May, M.D., consulting ophthalmologist to Bellevue, Mt. Sinai and French Hospitals, New York; and Charles A. Perera, M.D., instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department of Columbia University, New York. Sixteenth edition, revised. 515 pages with 387 illustrations. Cloth. Price \$4.00. William Wood and Company, Baltimore, 1939.

## INCREASING LIFE EXPECTANCY MAY AFFECT AMERICAN THOUGHT

The increasing life expectancy of the American people may have a profound influence on national thought, expressing itself in a more mature national mind, *The Journal of the American Medical Association* for June 24 points out editorially. *The Journal* states:

"The life expectancy at birth in such countries as the Netherlands, Switzerland and New Zealand is slightly greater than that in the United States. In several of our Northern states, however, the figures reflect a better experience than that recorded in most foreign countries. The explanation appears to lie in the much lower life expectancy among Negroes, a fact which tends to distort the conclusions which might be drawn from examination of only the comparative gross statistics. There is no doubt, therefore, that the life expectancy of the white population of the continental United States is as long as or longer than that of any other country in the world, although that of Negroes is disturbingly out of proportion.

"The control of the communicable diseases has been the most important factor in increasing average longevity; in fact, except for tuberculosis and for pneumonia, infections have been almost eliminated as factors of importance so far as the death rate is concerned. For tuberculosis there has been a decrease in the average death rate since the decade from 1856 to 1865 of more than 90 per cent. With better understanding of the epidemiology and the social and individual factors involved in the spread of this disease, tuberculosis as a cause of death will probably recede still further in importance. If this occurs, as may be reasonably anticipated, ordinary foresight should lead some of the sanatoriums now devoted to the care of the tuberculous to consider their probable functions at some later time when their facilities may not be completely occupied by patients with this disease.

"For pneumonia, the record has not been as good as for tuberculosis. From an average death rate of 197 per hundred thousand of population in 1856-1865 the decrease is only to 96 per hundred thousand of population in 1936. Today, however, with increased knowledge of causes of disease, of epidemiology, of diagnosis and especially of newer forms of treatment, a relatively short span of years should remove pneumonia from its exalted position as third among the causes of death.

"Highly unsatisfactorily has been the experience with the large number of accidents which maim or destroy human life in the home, on the highway or in the factory. According to insurance statistics, the amazing number of 104,000 persons died accidentally in the United States in 1937. Since accidents rate high among the causes of death, their material reduction would further favorably affect average longevity.

"The two metabolic diseases most likely to interfere with aging are obesity and diabetes. These disorders may be partially classed as metabolic and associated with the aging process but are also influenced by hereditary and nutritional factors. Since this is the case, the fact that the nutritional requirements of older persons are less per kilogram of body weight deserves constant reiteration. Important also are the specific foods, particularly such proteins as are contained in liver, and the vitamin B complex and iron.

"With the decline of the birth rate and the coincidental increase in the number of individuals living to mature and later years, the character of the national population is being slightly modified. As a result, G. M. Piersol, M.D., and E. L. Bortz, M.D., Philadelphia, feel that the temper of the people is bound to assert itself in certain important changes which will extend into all the various phases of social, economic, political and professional life. A more mature national mind, they believe, should have a steadying influence on the life



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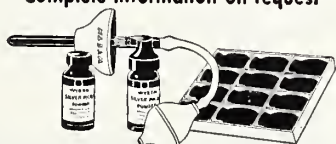
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of a nation. Already many industries have modified their views on workers in the older years. It is beginning to be appreciated that those over 40 often bring to an industry certain advantages more than compensating for any alleged fault associated with the older years. Since at present 260 of every thousand persons living in the United States are 40 years old or over and since it is estimated that 36 per cent of the population will be between 40 and 65 years old by 1960, the problem of industrial adjustment to this development is already here."

#### THE ADVANCING YEARS OF LIFE

The act of growing old gracefully, states Willius, *Froc. Staff Meet. Mayo Clin.*, 14:41, is not spontaneous, but requires deliberate preparation and the conscientious practice of a modified scheme of living. In the normal human being the curve of capability may be likened to the trajectory of a shell fired from a long-range gun. It rises steadily during the phase of acclivity until the greatest height is reached at about the age of fifty; the individual maintains this optimum level of capability for a decade at the most, and then the phase of declivity sets in, with a rapidly dropping capability curve which ends when the life force is spent, even as the shell ends its flight when the motive forces are dissipated and the attraction of gravity pulls it to earth. The person who would grow old and remain sound in every respect must fit his activities to his changing physiological capabilities. It has been said that the exception proves the rule; although a few individuals appear to be immune to the laws of Nature and live in apparently successful defiance of senescence, many others who continue their activities in the sunset years of life at the same high level which characterized the daily program of youth and early middle age are cut down without warning as some vital structure suddenly rebels at the demands it no longer can meet. To avoid such an untimely end, it is necessary to adopt a protective viewpoint of life well before the beginning of the phase of declivity, and to put into operation certain essential adjustments in the routine of living. In the case of younger persons, who even at a relatively immature age are living beyond their true capabilities, such adjustments might very probably avert or at least postpone a large percentage of the cardiovascular accidents that are responsible for most of the early tragedies of life. The over-vital, over-ambitious individual, old and young alike, must be taught to live less feverishly; the brilliant glare of life must be subdued by donning the darkened glasses of a different, afebrile philosophy.

How is this decelerated pursuit of living to be achieved? Referring to a change of regimen for older persons in words that also apply to certain younger men and women, Willius affords a few important generalizations that might well be pondered by physicians, both personally and for the benefit of patients: "When the curve of declivity begins, which obviously varies with different individuals but occurs fairly uniformly in a span of five to eight years, loads of all sorts must be

lessened. This means shorter hours of application, greater deliberation in the execution of duties, a slower cadence of activity, more frequent periods of rest and relaxation, and systematically increased intervals of recreation. Recreation also should be less strenuous to avoid any sudden and unaccustomed stress on the heart. Only too frequently sudden death eventuates when the middle-aged or elderly man disregards discretion and through the memories of a more robust era attempts ridiculous feats of physical prowess.

"Let the skeptics disbelieve, but before so doing let them look around and make appraisal of the venerable persons among their acquaintance who are still contributing to and enjoying life."—*Roche Review*, Vol. 3, No. 9, p. 322, June, 1939.

#### SOME PROBLEMS IN SURGICAL TREATMENT OF THE PROSTATE

The present status of the prostatic problem can, Hugh H. Young, Baltimore (*Journal A. M. A.*, Jan. 22, 1938), believe, be fairly stated thus: Transurethral operations have proved satisfactory in the treatment of obstructive conditions at the vesical neck, particularly contractures, bars and moderate enlargements. When the disease has progressed much beyond this stage, according to statistics of a great number of operators, enucleation of the prostate, preferably through the perineum, is the method of choice. By this means it is possible to see and feel the prostate, which is brought down by the tractor so that it may be carefully examined and even a portion excised for microscopic study, if necessary. In this way the presence of early malignancy may be detected and radical operation carried out. If the process is not malignant (and in about one in five cases it is) an enucleation of the hypertrophied lobes from within the prostate may be carried out cleanly, the hemorrhage completely arrested by ligatures and sutures and the operative wound closed. By such means not only does one carry out a clean surgical procedure, but one has the satisfaction of avoiding the sloughs and infection which not infrequently persist for a considerable period after transurethral operations and lead to painful prostatitis in the remaining gland tissue, cystitis and irritation, symptoms which are not infrequently worse than those of obstruction.

#### HEART DISEASE STILL IS LEADING CAUSE OF PHYSICIANS' DEATHS

Heart disease was again the leading cause of death, as it has been for many years, of physicians whose obituaries were published in *The Journal of the American Medical Association* in 1938, a summarizing editorial in *The Journal* for April 29 points out.

"The number of obituaries of physicians published in *The Journal* during 1938 was 3,768, including 3,630 of the United States as compared with 3,277 in 1937, also 138 of Canadian physicians," the editorial states.



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The average age at death of those classified as of the United States was 65.6, as compared with 65.4 in 1937. The highest number of deaths, 590, occurred between the ages of 65 and 69.

Arteriosclerosis was the second most frequent cause of death, with 442 victims. Cerebral hemorrhage ranked third with 384 deaths; 28 additional deaths were reported as due to paralysis. Fourth on the list was pneumonia with 350 deaths, of which 111 were specified as due to bronchopneumonia. Cancer was reported as the cause of death in 334 cases, while nephritis was reported in 204 deaths.

Classifying the deaths by civil positions, the editorial says that:

"Among the decedents were 206 physicians who were or had been teachers in medical schools, 466 who had served in the World War, 13 veterans of the Civil War and 70 veterans of the Spanish-American War. One hundred and eighty-one were or had been health officers, 151 members of boards of education, 72 members of boards of health and 21 members of state boards of medical examiners. There were 75 who were or had been coroners, 51 mayors, 39 members of state legislatures, 32 authors, 26 bank presidents, 15 pharmacists, 15 members of city councils, 12 editors, 10 postmasters, 10 police surgeons, 8 dentists, 7 missionaries, 5 clergymen, 4 lawyers, 2 justices of the peace, 1 United States Senator, 1 Congressman and 1 judge. There were 21 members of the United States Army Medical Corps, 12 of the United States Navy Medical Corps, 13 of the United States Public Health Service, 13 of the Veterans' Administration and 5 of the Indian Medical Service."

#### GERIATRICS

The proportion of our population over 60 years of age is definitely increasing, due to the innumerable factors that have brought about a decrease in infant mortality and a gradual prolongation of the span of life. In this period of life are to be found the majority of involutional diseases, and other diseases and injuries occurring during old age are considerably modified as to their symptoms and course. The care of this group, both in the preservation of their physical and mental health and in the care of disease, will become an increasingly larger problem.

Thus heart disease which takes its greatest toll during the fifth decade is a far less frequent cause of death in old age. Paralysis agitans, senile tremor, persistent insomnia, and the mental aberrations so frequently an accompaniment of senility require special measures for their management. The tendency to constipation in the aged must be combated by attention to diet and exercise.

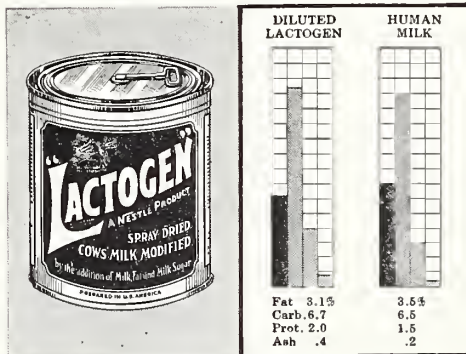
The enactment of legislation which makes it possible for elderly people to retire from active work brings with it an added problem. Many will find it difficult to adjust themselves to a new mode of living and it is important to direct the mental activity of these retired and unemployed people so that they will not feel themselves to have passed the stage of usefulness. Each one will require individual attention and no uniform program can be outlined.

Geriatrics, it appears, may branch out as a specialty in medicine even as pediatrics, the other extreme, did years ago. Camp<sup>1</sup> feels that intensive study of the functional and organic changes of old age is necessary, since the therapy of these conditions is obviously different from that utilized in the middle decades of life.—Editorial, New York State Journal of Medicine, July 15, 1939, p. 1337.

<sup>1</sup> Camp, C. D.: *J. Michigan M. Soc.* 38:289 (1939).

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(See page 430)

### ADVERTISERS IN THIS ISSUE

Adams, Arthur (medical books).....	viii
Belgard School, Chicago.....	xxiv
Buck, Maynard A., Warren, Ohio.....	xiv
Chicago Tumor Institute.....	xxi
Commercial Announcements .....	xxi
Coca-Cola .....	vii
Cook County Graduate School, Chicago.....	xiii
Ford-Mercury .....	3rd cover
Hanger Company, Indianapolis.....	xiv
Hord's Sanitarium, Anchorage, Ky.....	xvi
Indiana University School of Medicine.....	4th cover
Keenan Hotel Co., Fort Wayne.....	vii
Lederle Laboratories, New York.....	xi
Eli Lilly & Company, Indianapolis.....	xviii
Louisville Neuropathic Sanit., Louisville.....	xiv
Luzier's, Inc., Kansas City, Mo.....	xii
Maples Sanitarium, Saint Marys, Ohio.....	xiv
McMillen Sanitarium, Columbus, Ohio.....	xvi
Mead Johnson & Co., Evansville.....	iv
Medical Protective Co., Wheaton, Ill.....	xix
Milwaukee Sanit., Wauwatosa, Wisc.....	4th cover
Neuronhurst—Fletcher's Sanit., Indianapolis.....	xv
Nestle's Milk Products, New York.....	xxiii
Parke-Davis Company, Detroit.....	v
Petrolagar Company, Chicago.....	2nd cover
Philip Morris Cigarettes.....	xxv
Physicians' Casualty Assoc., Omaha, Neb.....	xix
Physicians' Directory .....	xxvi
Pitman-Moore Co., Indianapolis.....	xvii
Plymouth Sanitarium, Plymouth, Ind.....	xvi
Pogue School, Wheaton, Ill.....	xiv
Radium and Radon Corp., Chicago.....	xv
Rogers Memorial Sanit., Oconomowoc, Wisc.....	xvii
S. M. A. Corporation, Chicago, Ill.....	ix
Smith, Kline & French Labs.....	xxxvi
South Bend Medical Laboratory.....	xv
Sterne Memorial Hospital, Indianapolis.....	xv
Stokes Hospital, Louisville, Ky.....	xiii
Upjohn Company, Kalamazoo, Mich.....	iii
Waukesha Springs Sanitarium, Waukesha, Wisc.....	xiv
White-Haines Optical Co., Indianapolis.....	xiii
Wyeth, John & Bro., Philadelphia.....	xxi
Zemmer Co., Pittsburgh.....	xxii

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### CHRONIC RHEUMATIC BRAIN DISEASE AS A FACTOR IN THE CAUSATION OF MENTAL ILLNESS\*

#### REPORT OF TWO CASES

WALTER L. BRUETSCH, M.D.

MAX A. BAHR, M.D.

Indianapolis

In modern psychiatry little if any attention has been given to a rheumatic infection as the cause of mental disorders. This is partly due to the fact that obvious rheumatic manifestations, in particular polyarthritic symptoms, are rarely seen in mental hospitals. If, however, a careful anamnesis is taken, a history of rheumatic fever or of chorea is not infrequently found in chronic mental patients. With the present tendency to explain the causation of most psychoses on a dynamic-psychologic rather than on a somatic basis, the presence of a rheumatic history or of rheumatic heart disease in a mental patient is considered merely incidental.

Mental symptoms which occur during or immediately following the acute stage of rheumatic fever are a well-known, though rare, complication.<sup>1-2-3</sup> The anatomic changes that are present in the brain of patients who have shown neurologic or psychiatric symptoms during the course of acute rheumatic fever have been described by Winkelman and Eckel.<sup>4</sup> They consist of a proliferative endarteritis

of the small cortical vessels with their dependent acellular areas, i.e., circumscribed places in which the ganglion cells have disappeared. In addition, marked brain edema is present, and in some instances glial nodules are found.

The thought that a chronic rheumatic infection might be the etiologic factor in certain cases of longstanding mental illness has arisen from post-mortem observations. In the autopsy service of the Central State Hospital of Indianapolis it was noted that in some patients with old rheumatic changes on the heart valves, gross lesions in the form of small or large infarctions were present in the brain and at times in other organs.<sup>5</sup> In most of these patients the clinical record did not contain a note as to a previous rheumatic infection, and none of the patients had gone through an acute attack of rheumatic fever while an inmate of the institution.

The material on which this communication is based comprises 500 complete autopsies on mental patients, which were made by Dr. Bruetsch, and in which particular attention was given to the presence of rheumatic valvular heart disease. Other forms of endocarditis such as the subacute bacterial form,<sup>6</sup> the acute bacterial type, and syphilis of the aortic valve were ruled out by gross and histologic examination. Care was also taken not to include possible instances of what has been described as nonbacterial thrombotic endocarditis.<sup>7</sup> The anatomic

\* From the Central State Hospital, Indianapolis; and from the Department of Mental and Nervous Diseases, Indiana University School of Medicine.

Presented in the form of a scientific exhibit at the 101st meeting of the American Association for the Advancement of Science, Dec. 27-31, 1937, at Indianapolis, Ind.; and at the 90th annual session of the American Medical Association, May 15-19, 1939, at St. Louis, Mo.

<sup>1</sup> Hoppe, H. H.: Cerebral Rheumatism. *Lancet-Clinic*, 101:219, 1909.

<sup>2</sup> Williams, E. M.: Cerebral Rheumatism. *New York M. J.* 94:478, 1911.

<sup>3</sup> Coombs, C.: Cerebral Rheumatism. *Practitioner*, 88:99, 1912.

<sup>4</sup> Winkelman, N. W., and Eckel, J. L.: The Brain in Acute Rheumatic Fever; Nonsuppurative Meningo-Encephalitis Rheumatica. *Arch. Neurol. & Psychiat.* 28:844 (Oct.) 1932.

<sup>5</sup> Bruetsch, W. L.: Psychosen bei chronischer Endocarditis. *Psychiat.-Neurol. Wchnschr.* 38:551 (Oct. 31) 1936 and *ibida* 38:563 (Nov. 7) 1936.

<sup>6</sup> Bruetsch, W. L.: The Histopathology of the Psychoses with Subacute Bacterial and Chronic Verrucose Rheumatic Endocarditis. *Am. J. Psychiat.* 95:335 (Sept.) 1938.

<sup>7</sup> Gross, L., and Friedberg, C. K.: Nonbacterial Thrombotic Endocarditis: Classification and General Description. *Arch. Int. Med.* 58:620 (Oct.) 1936.

investigation disclosed chronic rheumatic valvular disease to be present in 4 per cent. Histologic examination of all the organs of these patients revealed the interesting fact that the long-continued rheumatic infection had not only involved the heart, but also the brain and other organs, such as kidneys, spleen, pancreas, etc. The changes in the brain consisted of an obliterating rheumatic endarteritis of small and larger vessels having resulted in gross and microscopic infarctions and in numerous minute areas of incomplete softening (acellular areas). Small connective tissue scars originating from proliferating vessels and extending over several cortical cell layers were frequently observed. Glial nodules were occasionally seen in the cortex and in the white matter. In two patients with a psychosis of short duration a rheumatic encephalitis was present.

Since the involvement of the brain in patients with chronic rheumatic endocarditis may apparently occur at any time in life, a great variety of psychiatric syndromes can result. Some of the cases were diagnosed as dementia praecox, others as manic-depressives or as involutional and senile psychoses. Two patients were grouped under the heading of psychosis with cerebral arteriosclerosis, because residual signs of a "stroke" were present. If the rheumatic infection produces brain lesions in childhood, mental deficiency may result.

#### REPORT OF CASES

**Case 1—History**—B. M., a white woman, aged 38, was admitted to the Central State Hospital of Indianapolis on January 15, 1915. The first symptoms of the psychosis were noted about two weeks prior to admission. The patient thought that someone was persecuting her, to sell her into white slavery. She heard voices and believed she had a great deal of money and much real estate. At times she was talkative and threatening. There were episodes of catatonic excitement during which she was violent and pulled out her hair. Then she had periods when she was quiet and well behaved. The patient was considered a case of dementia praecox showing in later years a moderate degree of intellectual impairment.

The last physical examination six months prior to her death revealed distant heart sounds, but no murmurs. B. P. 125/90. The pupillary and other reflexes were normal. She died at the age of 57 after nineteen years of institutional life with signs pointing to a renal condition. During the last six months there was a daily elevation of temperature ranging between 100 and 101 F. There were no joint symptoms.

Nothing of importance was known of her family history. At the age of 7 the patient had scarlet fever, complicated by otitis media, resulting in impaired hearing of one ear.

The Wassermann reaction of the blood at the time of admission in 1915 and again in 1925 was negative. A urine examination in 1920 was normal,

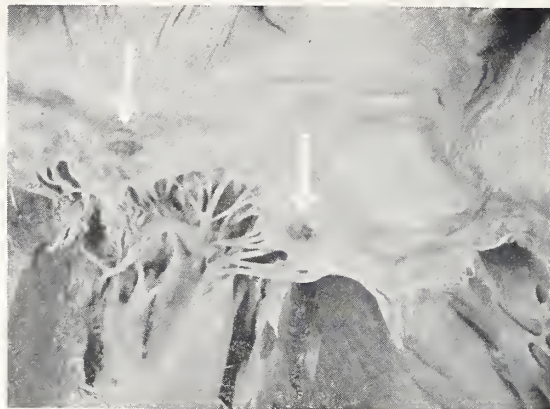


Fig. 1 (case 1).—Mitral valve. Two rheumatic verrucae on closing border.

but prior to her death there was a slight albuminuria.

**Autopsy.**—On the mitral valve of the heart were two small verrucose vegetations (Figure 1). Adjacent to the vegetations the mitral leaflet was a little thickened, otherwise the closing border was normal. In the heart muscle, a few barely visible greyish areas were noted. Weight of heart: 200 Gm. Histologic sections through the warty elevations disclosed old and new changes characteristic of a recurrent rheumatic process. One vegetation consisted of fibrinous eosin-staining material into which fibroblasts were growing. Young fibroblasts were seen having two nuclei, suggesting that this verruca was in an active stage. A little removed from the base of the vegetation were focal accumulations of round cells and areas with an increased number of fibroblasts. The other vegetation was completely organized, being made up of dense connective tissue. The valve was free of bacteria.



Fig. 2 (case 1).—Schizophrenic psychosis with chronic rheumatic brain disease. Cerebral cortex with cystic area, caused by rheumatic endarteritis of meningeal vessel. The lesion is apparently of many years' duration. The obliterated artery is just outside of photographed portion and is shown in figure 3. Toluidine blue stain.



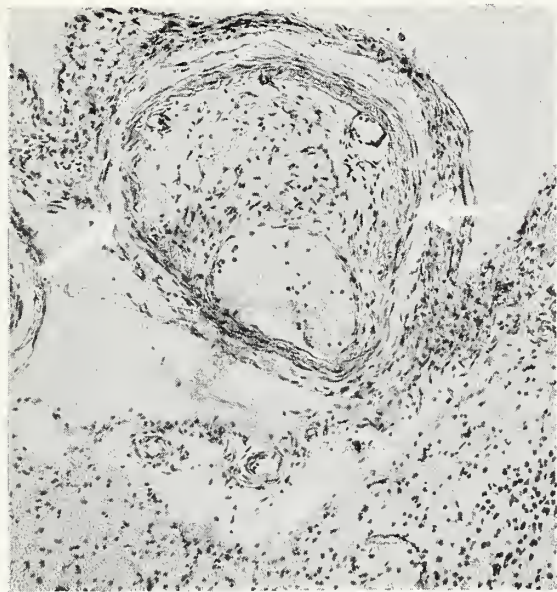


Fig. 3 (case 1).—Old rheumatic endarteritic process of vessel in pia-arachnoid. The artery is partly occluded. In the cortex beneath is the cystic area, shown in figure 2. Toluidine blue stain.

In the myocardium was an increase of connective tissue about the vessels, and one coronary branch showed rheumatic-endarteritic changes. Aschoff bodies were not observed.

Other important findings were a chronic interstitial nephritis with round cells scattered throughout the renal cortex, and an old, splenic infarction, dividing the spleen into almost two separate organs.

The brain on its outer surface was normal. Arteriosclerotic changes were absent. Dissection into

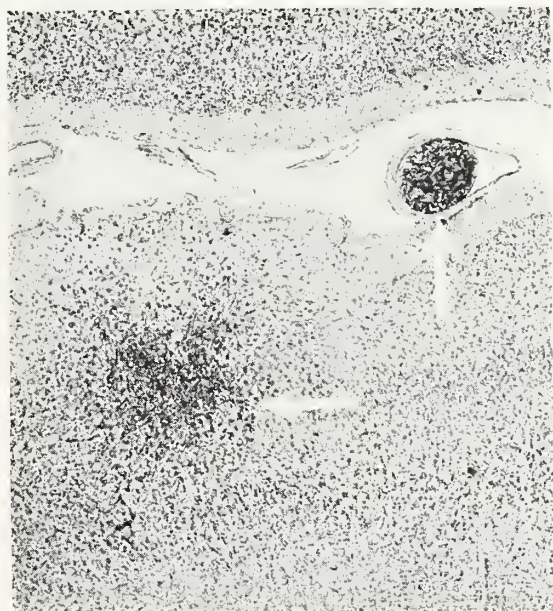


Fig. 4 (case 1).—Recent rheumatic endarteritis of pial vessel. There is a focus of glial proliferation in the grey matter. Toluidine blue stain.

thin frontal slabs revealed a small area of cystic softening in the left putamen and foci of cortical erosion in one frontal and in one occipital convolution. Microscopic examination detected other minute softenings in the cortex which had escaped notice on gross examination. Figure 2 shows a defect in the cortex with the pia-arachnoid dipping down toward the region of cystic degeneration. In the meninges, immediately outside of the photographed portion, was an almost occluded vessel suggestive of an old rheumatic-endarteritic process (Figure 3). This artery was considered responsible for the infarcted cortex seen in figure 2. In addition there were meningeal vessels disclosing signs of recent rheumatic endarteritis (Figure 4). Some of the proliferating endothelial cells of the vessel shown in figure 4 were in the stage of cell division, furnishing evidence that one is dealing here with renewed activity of the intimal cells. In the cortex beneath this pial artery, a large focus consisting of glial cells was present. It was not difficult to find other endarteritic vessels both in the meninges and in the cortex as well as in the white matter of the brain. Scattered throughout the grey matter of all lobes were numerous areas of paling (acellular areas) and minute connective tissue scars consisting of proliferated capillaries. In the subcortical white matter, loose glial nodules were present. In the striatum, besides the grossly noticeable cystic area, nothing abnormal was seen. The optic thalamus, midbrain and pons were free of changes.

*Comment.*—The most important anatomical finding for the interpretation of the age of the rheumatic infection was the old infarction of the spleen, which presented clear evidence that the rheumatic process was not a recent or terminal incidence. The mitral valve showed rheumatic changes of a recurrent character, and similarly in the brain old and recent signs of rheumatic vascular disease were present.

**Case 2—History**—B. D., a white woman, aged 50, was admitted to the Central State Hospital of Indianapolis with the following history: Several months prior to her commitment the patient had a "stroke." Following this she was given to crying spells without proper emotional cause. She assumed a threatening attitude toward the family and became destructive and wandered away from home. Her mental condition in the hospital was characterized by manic periods followed by depressive moods.

There was a left-sided hemiplegia with positive Babinsky and increased tendon reflexes on the affected side. The pupils reacted sluggishly to light. The heart was enlarged. There was increased impulse and considerable irregularity. Loud murmurs could be heard, but they were difficult to define due to the tumultuous action of the heart. B. P. 105/60. There were rales at the lung bases. The liver extended 2 fingerbreadths below the costal margin.

No mention was made in the clinical record pertaining to a possible history of rheumatic fever or of chorea.

The urine on admission was normal, and the Wassermann reaction of the blood was negative.

The patient died four years later of a failing rheumatic heart. The mental diagnosis was psychosis with cerebral arteriosclerosis.

**Autopsy.**—There were old adhesions of the pericardium and in other places a layer of fibrinous exudate was present being in the stage of organization. The mitral leaflet was markedly thickened (Figure 5). On the closing border were two roughened, hard vegetations. The chordae tendineae were completely shrunken. There was a terminal thrombus on the wall of the dilated left auricle. In the heart muscle numerous fibrous scars were noted. Weight of heart: 380 Gm. On histologic examination, the mitral valve consisted of almost acellular connective tissue, which in places was vascularized. On the surface of the shrunken closing border was a narrow rim of tissue rich in pigment-laden histiocytes which were intermingled with a few lymphocytes. At one place calcification was present, and in other areas foci consisting of plasma cells were seen. The mitral valve was negative for bacteria. About the vessels of the myocardium was a marked increase of connective tissue. Aschoff bodies were not found.

In the surface of both kidneys were large depressions and areas of scarring (contracted kidneys), which on microscopic examination were found to be the result of obliterating rheumatic-endarteritic changes. The lungs and liver showed chronic passive congestion.

In the brain was an area of old cystic softening

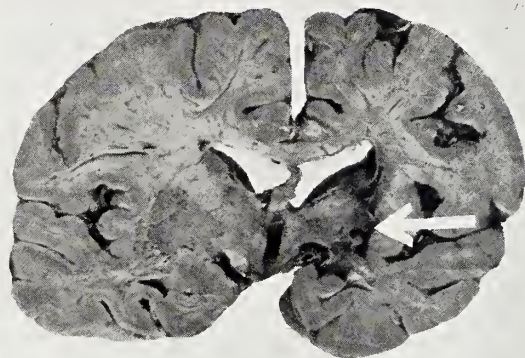


Fig. 6 (case 2).—Psychosis with chronic rheumatic brain disease. Area of softening in right basal ganglia, resulting from rheumatic involvement of striatal vessel.

involving the internal capsule and the striatum of the right side (Figure 6). Both middle cerebral arteries as well as the other brain vessels were free of arteriosclerosis. The lumen of the right lenticulostriate artery was obliterated by connective tissue. The occlusion was interpreted as attributable to primary rheumatic injury of the vessel wall followed by thrombus formation, rather than to an organized embolus. There were several small cystic softenings in the frontal and temporal lobes. A few meningeal vessels were completely occluded by an old endarteritic process (Figure 7). In the lumen of a small pial artery of the temporal region was a fibrin plug into which endothelial cells were growing. This process was of recent date. In the cortex of all lobes were areas of incomplete softening also called pale or acellular areas (Figure 8).

**Comment.**—The stroke occurring late in middle life was supposed to have resulted from early cerebral arteriosclerosis, yet at autopsy sclerosis of the brain vessels was absent. It is significant that no attention was given to the presence of the rheumatic infection, as shown so clearly by the rheumatic heart. Cerebral accidents during the course of chronic endocarditis are usually believed to be the result of emboli, detaching themselves from the involved heart valves.<sup>8</sup> In chronic rheumatic valvular disease, however, there are either no vegetations, or the fibrous verrucae are firmly grown to the closing border and for that reason are not very liable to become the source of embolic manifestations. It is not generally known that analogous changes to those on the endocardium may occur anywhere on the endothelium of the vascular system, producing a starting point for the formation of a thrombus. This vascular complication has been termed arteritis verrucosa, and refers to the formation of verrucae on the wall of blood-vessels, probably identical with those found on rheu-



Fig. 5 (case 2).—Chronic rheumatic valvular disease. On the thickened closing border are two firm, partly calcified vegetations. The chordae tendineae are shrunken. There is a terminal thrombus on the wall of the dilated left auricle.

<sup>8</sup> Weiss, S., and Davis, D.: Rheumatic Heart Disease. III. Embolic Manifestations, *Am. Heart J.* 9:45, 1933.





Fig. 7 (case 2).—Meningeal vessel with rheumatic vascular disease. The lumen is obliterated by an endarteritic process. Toluidine blue stain.

matic valves.<sup>9-10</sup> Histologic examination of the remaining brain showed the cerebral changes to be due to rheumatic vascular involvement of a similar nature as described by Von Glahn and Pappenheimer<sup>11</sup> for the vessels of the internal organs, and by Karsner and Bayless,<sup>12</sup> and by Gross and others<sup>10</sup> for the myocardial arteries. This patient also had kidneys that were contracted due to rheumatic endarteritis of the renal vessels. It was Fahr<sup>13</sup> who reported instances of nephrosclerosis which followed a rheumatic infection.

### DISCUSSION

Of great significance is the question: Is there a direct causal relation of the psychosis to the rheumatic infection? In case 2, with the hemiplegia, the mental symptoms followed the stroke which was caused by a rheumatic-endarteritic process of the cerebral vessels. Here the mental symptoms were coincident with the beginning rheumatic involvement of the brain. In the other patient, with a schizophrenic psychosis lasting for nineteen years, it is, of course, impossible to state with certainty that the rheumatic brain changes were being set off at the time of the onset of the mental symptoms. The demonstration at autopsy of rheumatic changes

of many years' duration, such as the splenic infarction, seems to make almost certain that the infection was present at the time of the beginning of the psychosis.

The inference that rheumatic disease may be responsible for chronic mental illness is supported by what is known of the life history of the rheumatic lesions on the heart valves. There is a similarity between the chronicity and the character of the rheumatic changes in the brain and the happenings on the valves of the heart. The rheumatic lesions on the valvular tissue may in some instances remain mildly active throughout the entire life of the patient. In spite of this, the individual appears well and is able to work, being sometimes unaware of the heart condition. During the years of apparent good health, however, the rheumatic process continues on the endocardium. Among other morbid changes, fibroblasts, which divide by direct and indirect cell division, form new connective tissue producing a slowly progressive thickening of the closing border. Similar alterations on what seemed grossly quiescent rheumatic valves were observed many years ago by Krehl,<sup>14</sup> who also laid the basis for the newer concept of the relation of rheumatic fever to arterial disease.

Cytologic study of the heart and brain in our material confirmed the earlier observations of Krehl, and also disclosed that the fibroblasts and the closely related endothelial cells are the cell types which are particularly involved in chronic rheumatic infection. In some cases dividing fibro-

<sup>14</sup> Krehl, L.: Beitrag zur Pathologie der Herzklappenfehler. *Deutsch. Arch. f. klin. Med.* 46:454, 1890.

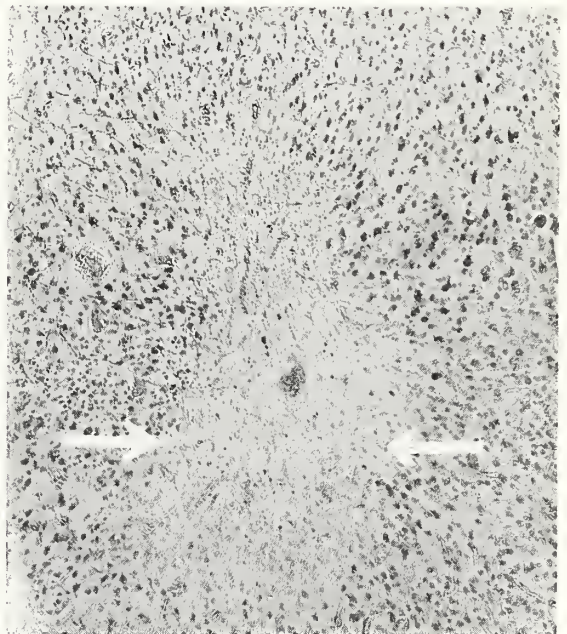


Fig. 8 (case 2).—Area of incomplete softening (acellular area), in which the ganglion cells have disappeared. Such minute lesions were scattered throughout the cortex of the entire brain. Toluidine blue stain.

<sup>9</sup> Holsti, Ö.: Zur Kenntnis der Arteriitis verrucosa. *Arch. a d. path. Inst. d. Univ. Helsingfors.* 5:110, 1927-28.

<sup>10</sup> Gross, L., Kugel, M. A., and Epstein, E. Z.: Lesions of the Coronary Arteries and their Branches in Rheumatic Fever. *Am. J. Path.* 11:253 (March) 1935.

<sup>11</sup> Von Glahn, W. C., and Pappenheimer, A. M.: Specific Lesions of Peripheral Blood Vessels in Rheumatism. *Am. J. Path.* 2:235 (May) 1926.

<sup>12</sup> Karsner, H. T., and Bayless, F.: Coronary Arteries in Rheumatic Fever. *Am. Heart J.* 9:557, 1934.

<sup>13</sup> Fahr, T.: Kurze Beitrage zur Frage der Nephrosklerose. *Deutsch. Arch. f. klin. Med.* 134:366, 1920.

blasts were seen both in the closing border of the valves and in the perivascular connective tissue of the myocardium producing here an increase of fibrous tissue, which according to Aschoff<sup>15</sup> is a rather characteristic sign of a rheumatic heart. Progressive changes of a similar nature may occur on the endothelial cells of the entire vascular system, more often observed in the smaller arteries than in the main stems, leading to intimal proliferation with the picture of an obliterating endarteritis. If in this process the cerebral vessels take part, chronic rheumatic brain disease will result.

Since the causative agent of rheumatic infection is unknown, it is not possible to establish with absolute surety the definite nature of a given lesion. The fact that the vascular lesions in the brain have been invariably associated with chronic rheumatic valvular disease speaks strongly for a rheumatic origin of the cerebral changes. Some of the patients had also a history of previous rheumatic fever or of chorea. Aschoff bodies were not found in the two cases described in this paper, but they could be demonstrated in the heart of other patients. The absence of Aschoff bodies does not necessarily exclude the rheumatic etiology of the vascular lesions, since Aschoff nodules are known to have a temporary existence and are less frequently found in older persons. The rheumatic-endarteritic changes in the brain resembled those of syphilitic endarteritis, and a differentiation from the morphologic appearance alone is not possible. Only in the presence of other rheumatic changes (verrucose endocarditis, splenic and renal infarctions) and by exclusion of syphilis both serologically and by microscopic examination of the aorta, can one arrive at a fairly safe diagnosis as

to the basic cause of the vascular lesions. The concurrence of both syphilis and chronic rheumatic endocarditis was observed in some patients, but cases of the latter group were not considered in this study.

### TREATMENT

It has been mentioned by Hoppe<sup>1</sup> that cerebral rheumatism was more common before the use of the salicylates, and Bramwell<sup>16</sup> believed that mental symptoms during acute rheumatic fever are greatly relieved by this drug. A study is under way at the Central State Hospital of Indianapolis to show the effect of large doses of salicylates on the mental symptoms of patients with chronic rheumatic endocarditis in whom a brain involvement has been suspected. This pharmacological experimentation has not progressed sufficiently to warrant any statements.

### SUMMARY

Chronic rheumatic endocarditis (not complicated by syphilis) was found at autopsy in 4 per cent of 500 patients dying in a state hospital for mental diseases. Histologic examination of all the organs of these patients revealed concomitant changes in the brain and in other organs. The fundamental rheumatic lesion in the brain consisted of a vascular process of an obliterating endarteritic type with subsequent degeneration in the parenchyma. The postmortem observations seem to furnish ground for the inference that a causal relationship exists between chronic rheumatic infection and the mental symptoms of patients with rheumatic valvular heart disease.

<sup>16</sup> Bramwell, B.: Cerebral Rheumatism: Recurring attacks of severe headache, vomiting, and pyrexia in a rheumatic patient, completely relieved by salicylate of sodium. *Clin. Stud. Edinburgh*, 4:26, 1905-6.

<sup>15</sup> Aschoff, L.: *Pathologische Anatomie*, ed. 4, Jena, Gustav Fischer, 1919, vol. 2, p. 40.

## ABSTRACT

### HOSPITAL CARE AND SCHIZOPHRENIA

The importance of early hospitalization in bringing about recovery from schizophrenia (cleavage of mental functions) is emphasized in *The Journal of the American Medical Association* for June 10 by Jules Gelperin, M.D., Cincinnati, who made a study of 235 patients in the Cincinnati General Hospital.

The greater tendency for recovery among patients hospitalized soon after the onset of symptoms, he points out, is apparently not related to any specific treatment but rather to general care.

Of 103 patients whose symptoms were of less than six months' duration prior to hospital admission, fifty-three were discharged from the hospital improved. Of thirty patients whose symptoms were present for from six to twenty-four months prior to hospital admission, nine were discharged as improved. Twenty-seven patients showed improvement among the ninety whose symptoms were present for more than twenty-four

months prior to hospitalization. Five of twelve patients whose symptoms were of undetermined duration were improved at the time of discharge from the hospital.

Dr. Gelperin later tried to interview all of the ninety-four improved patients, but only twenty-one could be located in the community. Three had reentered the hospital because of recurrence of the condition, twelve months, twenty-two months and four years after the first discharge.

The eighteen patients (fourteen men and four women) who remained in the community with no return of their symptoms were interviewed. Eleven of the men were working full time and three part time. One woman was working full time outside her home and three were carrying on their household duties.

These improved patients had remained out of the hospital from one to fifty-five months, the average being 25.9 months.



# THE PRESENT STATUS OF SHOCK THERAPY IN THE TREATMENT OF DEMENTIA PRAECOX\*

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The purpose of this paper is to survey briefly the treatment as it has evolved in the nearly six years since the first results of shock therapy were announced and to recount a few of the high points in the established techniques of metrazol and insulin therapy.

What is the shock treatment? The term was first used by Dr. Manfred Sakel<sup>1</sup> in 1933 to distinguish the deliberately induced profound hypoglycemic coma from the previous insulin therapies where coma was avoided. The first paper on the use of insulin in psychotic patients appeared in 1923. It was written by Cowie, Parsons, and Raphael<sup>2</sup> all then of Ann Arbor. In 1926, 1927, and 1928, significant reports on insulin in the psychoses were made by Targowla and Lamache<sup>3</sup> in the French literature and by Puca<sup>4</sup> in the Italian; Schmidt<sup>5</sup> reported in German on the first use of insulin for other than nutritional effect. All noted a mental change in patients who went into coma accidentally. In America in 1928 Appel, Farr, and Marshall<sup>6</sup> used as high as 70 units a day with carbohydrate to promote the nutrition of psychotic patients; mental improvement was noted in a few of the number. However, Sakel<sup>7</sup> without knowledge of these reports, looked for a drug that would safely increase parasympathetic tone to combat some of the symptoms of morphine withdrawal. He began use of insulin for this purpose in 1928. In November, 1933, Sakel<sup>1</sup> made his announcement that coma with its attendant reactions was effectual in the treatment of psychotic individuals.

Shortly after Sakel's first report, Laszlo von Meduna<sup>8</sup> of Budapest announced the preliminary

results with "cardiazol," marketed in North America as "metrazol" (chemically pentamethylenetetrazol), a circulatory stimulant. Here again was a drug previously familiar to the profession which when used by a technique intensifying its effects produced results not to be expected from its original application. While insulin was utilized to produce deep coma, metrazol by a five-fold increase in dosage precipitated epileptiform convulsions.

## TECHNIQUE

As to therapy, there is considerable individual variation in the application of these drugs either alone or in combination. In brief, the coma-producing technique with insulin usually consists of a trial dose of 20 to 60 units given to the patient early in the morning without breakfast. A daily increase of 10 to 30 units, 6 days a week, is maintained until coma appears approximately 2 hours after the injection. This is the coma dose, which may be reduced as a patient develops insulin sensitivity. In the treatment of specific symptom complexes, Sakel<sup>9</sup> made certain recommendations in his original monograph:

1. Termination of depressed, mute, short term, psychotic patients in a period of excitement.
2. Termination of excited, noisy, short term psychotics, at the first quiet interval.
3. Apathetic, indifferent, apparently deteriorated patients are stimulated during stupor and terminated while agitated.
4. The paranoid, and
5. Chronic cases of dementia praecox are given repeated deep comas.

Sakel and others have since modified his original technique.

It was observed that on repeated use of the above variations the patient tended to remain somewhat in the mood in which the treatment was terminated. The object of repetition: to "fix" a mood opposing the psychotic attitude. The degrees of coma are roughly comparable to anesthesia. During light coma the patient no longer is responsive to ordinary stimuli. During moderate coma the superficial reflexes disappear and the so-called pathological reflexes as represented by the Babinski plantar sign and the Hoffman sign appear. In deep coma the corneal reflex disappears, the pupil remains somewhat constricted, and occasionally the pathological reflexes disappear. Sugar solution is given routinely four hours after the injection of insulin by nasal tube. Those patients showing the most profound coma should be able to converse

\* Presented before the Indianapolis Medical Society, February 21, 1939.

<sup>1</sup> Sakel, M.: Neue Behandlungsart Schizophreniker u. verwirrten Erreger. Proceedings of the Gesellschaft der Aerzte in Vienna. *Wien. Klin. Woch.*, **46**: 1372, 1933.

<sup>2</sup> Cowie, D., Parsons, J. P., Raphael, Theo.: Preliminary Report: Insulin and the Mental State of Depression: *J. Mich. State Med. Soc.*, **22**: 383, 1923.

<sup>3</sup> Targowla, R., and Lamache, A.: LeTraitement par l'insuline des etats d'anorexie de sitiophobie et de denutrition dans les troubles psychoneuropathiques. *Prat. med. franc.*, **5**: 452, 1926.

<sup>4</sup> Puca, A.: La insulino-terapia nei malati di mente. *Rassegna di studi psichiat.*, **16**: 461 (Sept.), 1927.

<sup>5</sup> Schmidt, Paul: Uber Organtherapie und Insulinbehandlung bei endogenen Geistesstorungen. *Klin. Woch. Nr.* **7**: 839, 1928.

<sup>6</sup> Appel, K. E., C. B. Farr, and H. K. Marshall: Insulin in undernourished psychotic patients. *J.A.M.A.*, **90**: 1788 (June 2,) 1928; also: *Arch. Neurol & Psychiat.*, **21**: 149 (Jan.) 1929.

<sup>7</sup> Sakel, M.: Neue Behandlung der Morphinsucht. *Deutsch. Med. Woch.*, No. 42, p. 1777 (Oct. 17), 1930.

<sup>8</sup> Von Meduna, Uber die biologische Beeinflussung des Ablaufs der Schizophrenie. *Z. Neur. (Eing. am 18, 1, 1935.)*

<sup>9</sup> Sakel, M.: Neue Behandlungsmethode der Schizophrenie, Vienna, 1935. (Verlag Moritz Perles.)

within thirty minutes after the carbohydrate solution has been given. Should there be no response at that time twenty-five to fifty grams of 50% glucose intravenously will usually produce the desired effect. There is rather general agreement that the longer termination is delayed after four hours, the greater is the risk.

#### REACTION TYPES

There are three principal types of reaction to insulin. The most common is the so called "wet shock" of Sakel. The patient first dozes, perspires freely, becomes restless, later shows moderate excitement with some twitching of small muscle groups which gives way to stupor and, as previously mentioned, coma at about two hours. With this reaction gavage is usually adequate for termination at the end of four hours. The average patient receives 50 to 60 such comas in the course of treatment.

A second reaction is the convulsive type, Sakel's "dry shock." Failure to perspire within one hour following the injection of a coma dose calls for added vigilance. Even in the "wet" type of shock, severe clonic muscular contractions may appear in the pre-comatose state. A majority of patients during their course of treatment will, in the stuporous stage or during light coma, have at least one convulsion which is epileptic in type. Occasionally the full sequence of cry, tonic-clonic phases, cyanosis with tongue biting, and incontinence, is presented. Formerly reactions of this nature were combated with sedatives and immediate termination. During the last several years, however, we have come to realize that such a reaction materially accelerates the progress of most cases. Most workers, including Sakel, are still wary of a convulsion appearing in deep coma, especially during the last hour of treatment.

A third reaction type, prolonged coma, is less often seen. It is an insulin response occasionally observed in the diabetic where coma continues with all the available data, including the blood sugar, indicating a normal state of the organism. In shock therapy this reaction is more apt to appear spontaneously only after prolonged hypoglycemia or late in the course of treatment. Prolonged coma may be deliberately induced with moderate certainty in an insulin sensitive patient even in the earlier stages of treatment by giving at intervals after the third hour insufficient carbohydrate to terminate the coma until the desired time has elapsed. This quantity of sugar is difficult to gauge. Prolonged coma has appeared spontaneously only twice in slightly over 1,900 comas that we have supervised. One lasted more than 100 hours, the other about 70 hours. That one such reaction may materially alter the prognosis in a previously static case is now the rationale of deliberate induction. This coma, when controlled, is seldom maintained for more than 12 hours. Some patients present an organic clouded state following the

prolonged coma; it may develop in others after a "wet" or "dry" shock. This condition is distinguished by disorientation, memory impairment, difficulty in thinking and concentration which may last for several weeks. Our one patient who remained in coma for four days showed a regressive amnesia over the following five weeks. She recalled, in order, acquaintances of preschool, grade school and high school days before recognizing more recently acquired friends. This patient's delusional system had persisted through 50 hypoglycemic shocks and 10 metrazol convulsions, but has not reappeared in the year since prolonged coma concluded her treatment.

#### COMPLICATIONS

The immediate complications of induced hypoglycemia are analogous to those of prolonged anesthesia, although the mechanism may be somewhat more profound. The most common difficulties are respiratory. Stertorous and bronchospastic breathing, Cheyne-Stokes breathing and occasional periods of hyperpnoea are observed. A dangerous disturbance is the quiet, shallow cog-wheel breathing with cyanosis indicative of a beginning central respiratory failure. Intravenous glucose should be given immediately. Variations in pulse rate and rhythm are marked, and vary somewhat with the depth of coma. Sudden changes in blood pressure are common but of serious moment only when of extreme grade. A thready pulse conveys its usual warning, however. The frequency of other complications is practically in inverse proportion to the care exercised in estimating the patient's eligibility for treatment. Müller<sup>10</sup> collected 1260 cases and found the mortality to be approximately .75%.

#### METRAZOL TECHNIC

As to the technic of convulsant therapy, metrazol to date remains the drug of choice principally because of ease of administration, limited reaction time, and margin of safety from the pharmacological standpoint. Camphor in oil by intramuscular injection is less popular chiefly because of the uncertainty of timing the onset of a seizure. With metrazol the estimated quantity of the drug in a 10% aqueous solution is given intravenously through the largest needle the vein will take, usually an 18 or 19 gauge. The faster the injection, the less drug required, and the more typical will be the resulting convulsion. In less than 15 seconds after the completion of the injection there may be a short cry, more usually a cough accompanied by an expectant rigid attitude. A short clonic phase of about 8 seconds gives way to a tonic phase which persists about 15 seconds, at which time the head is pulled back, the mouth is opened wide, with dislocation of the jaw occurring occasionally. The second clonic phase lasts for one to two

<sup>10</sup> Müller, Max: The Insulin Therapy of Schizophrenia, *Amer. J. Psychiatry*, May, 1938; Orig. published in *Schweizer Archiv. Fur Neurologie und Psychiatrie*, Supplement to 39, (1937).



minutes. As the jerking becomes less severe the flushed face becomes yellow gray, cyanosis develops with a period of apnea which persists for approximately 10 seconds, followed by hyperpnoea. This gives way gradually to normal respiration during the succeeding five minutes. Unconsciousness lasts from two to five minutes with various degrees of confusion remaining up to several hours. Should the calculated dose prove insufficient to produce a convulsion, an apprehensive attitude usually develops. With an increase of 0.5 to 1.0 cc. of the 10% solution, repeated after a 1 minute interval, a proper reaction is usually obtained. The tendency is to develop tolerance for the drug necessitating dosage increases dependent upon the severity of the preceding convulsion. Two to four treatments per week is the rule. Twenty-five convulsive seizures is regarded as maximal. The outlook is less favorable in patients who show no improvement before the tenth treatment. In our metrazol series, the average number of convulsions has been twelve.

#### COMPLICATIONS WITH METRAZOL

When it is recalled that there is a transient pulmonary edema in many patients following the period of apnea, it is not surprising that circulatory and respiratory failure are the chief threats in convulsant treatment. A circulatory stimulant, coramine, has been shown to combat the cyanosis when given early. However, it interferes with the full therapeutic effect of metrazol and therefore is used only when alarming symptoms present. The mortality in over 3,000 cases collected by von Meduna and Friedman<sup>11</sup> is 0.29%, incidence of complications, 2.2%

Fractures and dislocations may occur during the convulsive or even the post convulsive period of excitement. Fractures of vertebrae<sup>12</sup> are not uncommon in unprepared patients. We believe that the "mechanical" complications of metrazol therapy can be lessened by preparing each patient with enough insulin or barbiturate to produce relaxation. We prefer insulin and have used both forms of the sequence therapy (described in the next paragraph) for this purpose since February, 1938. Von Meduna<sup>11</sup> has referred to an "inflammatory" group of complications which includes pulmonary abscesses, activations of latent pulmonary tuberculosis, and acute nonfatal myocardial reactions.

#### COMBINATION TREATMENTS

Various combinations of treatment are employed. Summation therapy is that in which insulin is first given and the patient allowed to reach the stupor-

ous or light coma stage when metrazol is injected in the usual manner. The metrazol, when given two hours after insulin, acts in smaller dosage as a convulsant and the patient on recovering from confusion is able to drink the sugar solution. This is a method first advocated by Georgi<sup>13</sup> for patients apprehensive of metrazol. A similar result may be attained by terminating in the usual manner (with the sugar solution) before giving the metrazol, which is injected before the patient fully awakens. A second form of therapy is the sequence type. This is used in patients who have proven resistant to the agent which is first tried. Some stubborn cases have shown response as late as the end of a second course of insulin, metrazol therapy having been interspersed. Likewise, metrazol first used, may be followed by insulin with similar results.

#### SELECTION OF PATIENTS

Von Meduna<sup>11</sup> has listed contraindications to metrazol treatment, which could also in part apply to insulin therapy. No patient can be considered for treatment who presents an absolute contraindication such as: (1) organic cardiovascular disease, (2) an acute febrile illness, (3) pregnancy, (4) active tuberculosis, (5) abnormalities of the blood or urine constituents. He further lists as relative contraindications: (1) exophthalmic goiter, (2) history of severe intracranial injury, (3) seropositive syphilis, (4) latent tuberculosis, (5) patients who have long been (one year) bed fast (thereby developing fragile bones). To this list obviously must be added patients with relatively inaccessible veins.

As a basis for advising treatment, it can be said that in experienced hands the results of both treatments have been that (a) if the psychosis is of less than six months duration, one may expect approximately two-thirds of the cases to respond in some degree; (b) if the psychosis has been of six to eighteen months duration, half of the individuals may be likewise benefited; and (c) about a third of the treated cases of more than eighteen months duration can be removed from custodial care. In considering this outline of prognosis one remembers that in psychoses of shorter duration the response is better both quantitatively and qualitatively.

Other important points in the prognosis are:

(1) The pre-psychotic personality. If the disposition was an active, open, friendly one, the outlook is better.

(2) Bodily type is also a factor. Although dementia praecox may be seen in any bodily type, it is generally observed that the psychosis gives up its hold on the round-faced, stocky type, most readily, on the asthenic type least readily; the athletic or mixed type occupies a mid-position. This

<sup>11</sup> Von Meduna, Laszlo and Friedman, Emerick: The Convulsive-Irritative Therapy of the Psychoses. *J. A. M. A.* **112**, No. 6, Feb. 11, 1939.

<sup>12</sup> (a) Wespi Hans: Ein Fall von spontaner Wirbelfraktur in Cardiolozonfoll, Schweiz. *Arch. f. Neurol. u. Psychiat.* **42**: 404-406, 1938 (b) Stalker, Harry: Report of Double Vertebral Compression Fracture from Convulsive Therapy. *Lancet*, **2**, 1172, Nov. 19, 1938.

<sup>13</sup> Georgi, F. and Strauss, R.: Krampfproblem and insulin therapie, Schweiz. *Arch. f. Neurol. und Psychiat.* **39**: 55-64, 1937.

variation is explained on an endocrine basis, or the reactive factor in the personality.

(3) The form in which the psychosis appears. Workers are not in complete agreement as to whether the catatonic or paranoid form responds more readily. The hebephrenic and the simple forms are definitely less responsive. Cases with an acute onset do better, particularly if the disturbance is marked. The insidious onset with a scarcity of symptoms offers a poor outlook. Schizoid patients with manic tendencies or accompanying involutional changes do not respond as well to treatment.

#### THEORETICAL CONSIDERATIONS

The mechanism of shock therapy is but partially known. A number of theories have been advanced and countless observations have been made to prove or disprove those theories. As a result, we are in possession of many isolated and some coordinated facts but the explanation of insulin or metrazol effect in the re-integration of the psychobiologic unit is yet to be given.

#### SPONTANEOUS REMISSIONS

It is due principally to differing criteria in various countries for diagnosis of the original condition and the difficulty of getting an accurate opinion from the relatives of psychiatric patients that there is a wide divergence of thought on this old question. The remission rate for all types of dementia praecox has been variously quoted from 3% to 15%. Recently Drs. Clarence O. Cheney and Patrick Drewry, Jr.,<sup>14</sup> have reported on 500 patients who were given intensive non-specific therapy for an average of a year at the Westchester division of the New York Hospital with 30% showing moderate improvement and an additional 7% showing full remissions. A follow up of one to eleven years showed 30% improved with recoveries increased to 12%. Corresponding figures were reported by Ross after a one year follow up of insulin treated cases in the New York Hospitals.<sup>15</sup> These are the most optimistic figures from a reliable source concerning the results of non-specific therapy in dementia praecox.

#### RESULTS

The various tables prepared by individual authors on the results of the shock treatment show a seeming disparity. This is of principal interest in the matter of remissions. To evaluate the numerous articles that have been written would require a long paper. To even approach the answer one must, as usual, know the personality behind the paper and know the incentive for the paper (Example: the metrazol insulin rivalry). Following the

original reports of Sakel,<sup>1</sup> von Meduna,<sup>8</sup> Müller,<sup>16</sup> and Dussik,<sup>17</sup> there was considerable "testing the test" activity. Groups of patients were treated in institutions with conscious attempts made to eliminate certain factors in the treatment which its pioneers deemed advisable for best effect. Nevertheless, the results in many of these instances have been offered in proof of the relative superiority of one drug over the other or the utter uselessness of shock therapy in general.

Some authors have departed from the original terminology and classification. For brevity I paraphrase Sakel's<sup>18</sup> definitions of: (a) The full or complete remission: The individual fully understands his recent illness and is able to resume his previous place in society. (b) The good remission: The patient lacks full understanding of his illness but is able to pass for normal in average society. (c) Social Remission: Patient improves enough to be cared for in the home and may do work involving little responsibility. (d) No improvement: A patient who continues to require custodial care.

There has been some tendency recently to eliminate the good remission group of Sakel, counting these patients in the full or social groups as indicated.

Another point of variance has been deviation from Sakel's arbitrary limits defining the duration of the psychosis, namely up to six months, six to eighteen months and over eighteen months.

In the first detailed account of results on a fair sized group of cases by Dussik and Sakel<sup>17</sup> in 1936, in 58 cases with symptoms of less than six months duration 70.7% showed full remission, and an additional 17.3% were able to resume their work, making a total of 88% with positive results. A few months later Max Müller<sup>16</sup> of Munsingen, reported on 136 cases, in those of less than six months duration, full remission 73%; social remission, 16.8%. The figures in the more chronic groups are also of interest in this series. The six to eighteen months group showed 50% full remissions, 32% social remissions; over eighteen months, full remissions .5%, good remissions 45%. Von Meduna's<sup>8</sup> results with metrazol in early cases were quite comparable.

What happens to the results when the work is diversified? In that regard the Swiss figures are of interest<sup>10</sup> as an attempt was made to follow a standardized plan in 22 institutions. Four hundred ninety-five patients received therapy. The full remission rate plus the social remissions was approximately 29% less than Dussik and Sakel's figures. The Swiss general average was 30.7% less than the figures obtained by Doctor Müller, the head of

<sup>10</sup> Muller, Max, The Treatment of Schizophrenia with Insulin, *Ann. Med.-Psych.* T. 2., 649, Nov., 1936.

<sup>17</sup> Dussik, Th. and Sakel, M., Results obtained with the Hypoglycemic Shock Therapy of Schizophrenia, *Z. Neurol.* **155**, 1936.

<sup>18</sup> Sakel, M.: Nervous and Mental Disease. Monograph No. 62, 1938.

<sup>14</sup> Cheney, Clarence O. and Drewry, Patrick, Jr., Results of Non-Specific Treatment in Dementia Praecox, *Amer. Jour. Psychiat.* **95**: 1. (July) 1938.

<sup>15</sup> Cheney, Clarence O.: Personal communication, August, 1939.



this particular service. In the group that had been ill from a half to one and a half years, the difference was only about 5%. It would be of interest to learn just how thoroughly the 21 other institutional heads with their staffs believed in the efficacy of the treatment they gave. These results have been submitted on the basis that Sakel's principal suggestions were followed, including that of psychotherapy.

We know from personal observation that the cases reported by Hans Reese,<sup>19</sup> were given no psychotherapy as such. Reese states that an effort was made to test insulin and metrazol under comparable conditions, allowing each to stand on its own merits. With psychotherapy deliberately omitted, the results with insulin slightly exceeded that obtained in the Swiss institutions. Further interest lies in the comparison of the insulin with the metrazol figures. Full remissions and social remissions with insulin were 62%, with metrazol 20%, in that group ill less than twelve months. In patients ill one to two years full remissions were obtained with insulin in 57%, and with metrazol in 10%. We agree with Reese's comparisons to the effect that insulin remissions are of better quality, the patients presenting a higher degree of emotional rapport and a better insight. Reese states that his patients were selected, metrazol being given to the stuporous, depressed, and catatonic. Some time after Reese started his series, von Meduna concluded that "type-specified" therapy could not be supported by statistical studies.

On the other hand, Bowman<sup>20</sup> and his co-workers have treated comparable groups of moderate size and conclude as to the superiority of insulin treatment both as to quantity and quality of response. The quantitative result in a group of patients "ill up to one and a half years before treatment was begun, . . . a recovery rate of 52 per cent with the exclusively convulsant treatment as against a 69 per cent recovery rate with the individualized (insulin) shock treatment." The value of metrazol in augmenting the convulsant property of insulin is unquestioned, and as Bowman states, "So far as insulin shock therapy is concerned, our task is mainly to find out more precisely when the seizures help and when they do not, and diminish their frequency (by using barbiturates) or increase their frequency (with metrazol) accordingly." We concur in Bowman's conclusion which we quote in part: "The variations in type of shock reaction which we can now deliberately use, give the individualized treatment great advantages over the simpler and less complicated convulsive treatment. We conclude, therefore, that in hospitals equipped and ready to give systematic pharmacological shock treatment, the use of insulin, together with the use

of metrazol under special indications, remains the treatment of choice."

#### INDIVIDUAL RESULTS

In the appraisal of results it must not be forgotten that the patient who shows some improvement at the end of the course will often improve in varying degree during the following three months.

In considering results of treatment, no attempt can be made in a paper of this scope to deal with the individual reactions of the patient. Much of the fields of neurology and psychiatry would be covered in an adequate presentation of this phase.

#### RELAPSE

An incomplete follow-up on 200 patients<sup>10</sup> treated in Europe more than three years ago seems to indicate that the rate of relapse is less than 10%. Other figures on smaller series are as high as 20% for the first year following treatment. A majority of the relapses reported to date occurred within the first four months following treatment.

In our own series the one consideration has been to provide optimal conditions for recovery. We tried to give each patient that treatment or combination which on a particular day seemed best for him. We realize this group is so small as to give rise to misleading percentages. However, the trend of the figures is in agreement with the best results obtained elsewhere.

#### EARLY DIAGNOSIS

Dr. D. Ewen Cameron<sup>21</sup> has recently listed as the early specific symptoms of dementia praecox the following (Cameron's Table II):

##### Group I

##### *Ideational Responses*

Talked about.	Ideas of disgrace.
Watched.	Ideas of redemption.
Doped.	Supporting hallucinations.
Fears of violence.	

##### Group II

<i>Somatic Experiences</i>	<i>Psycho-Somatic Responses</i>
Dazed.	Screaming and giggling spells.
Dizzy.	Tantrums.
Lack of feeling of familiarity.	Failure to cooperate in eating,
Odd somatic experiences.	talking or moving.

#### CONCLUSION

(1) We wish to emphasize that the average figure for shock therapy when compared with the best figures for non-specific dementia praecox therapy indicate that the patient has a greater chance of recovery when shock therapy is given. It is also significant that these recoveries occur in less than three months hospitalization on the average as opposed to a year's hospitalization for non-specific therapy.

(2) The earlier the case is suspected of being dementia praecox the greater the chance of recovery regardless of the treatment employed.

(3) We realize that late diagnosis of dementia praecox in the average case is not always due to the difficulty in its recognition but is often due to the difficulty the family experiences in accepting the fact that one of its members is a "mental case" requiring medical consultation.

<sup>19</sup> Reese, Hans, Hypoglycemia and Convulsive Therapy in Schizophrenia, *J. A. M. A.* **112**: 6, 493-496 (Feb. 11), 1939.

<sup>20</sup> Bowman, Karl M., Wortis, J., Fingert, H. and Kagan, Julia: Results to Date with the Pharmacological Shock Treatment of Schizophrenia, *Amer. Jour. Psychiatry*, **95**: 4, January, 1939.

<sup>21</sup>Cameron, D. Ewen, Early Schizophrenia, *Amer. Jour. Psychiatry* **95**: 3, (Nov.), 1938.

## METRAZOL IN SCHIZOPHRENIA\*

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Schizophrenia, or as it is unfortunately called, dementia praecox, has been the most persistently pessimistic disease entity in psychiatry. Until recently very little could be offered the family of patients suffering from this disease. Every type of medication and therapy has been tried throughout the years, but only occasionally would the patient be able to return to an active and normal life. Hypothesizing foci of infection as a cause, teeth and tonsils without number have been removed; endocrine extracts and substances, from the pituitary to the ovaries and testes, have been poured into these patients. Sedatives, isolation, hypnotism, have been administered. With greater reason, occupational therapy, psychotherapy, and psychoanalysis have given varying results that cannot be ignored. Even in those cases that were considered to be in a period of remission, the physician generally expected that, sooner or later, such cases would return to the sanatorium or state hospital.

In 1935, Meduna, of Budapest, presented a paper advocating the use of metrazol, then known as cardiazol, in the treatment of schizophrenics. At about the same time, Sakel advocated a similar type of therapy in which he used insulin. Much has been done and said by these men, and by their followers, but this discussion will be limited to the use of metrazol.

In Meduna's original article, *The Convulsional Therapy of Schizophrenia*, it is stated that this therapeutic idea was based on the observations of Nyiro, Jablansky, Miller, and Glous: "That there was, apparently, a biological antagonism between epilepsy and schizophrenia." It had been noticed that epileptics who developed the mental characteristics of schizophrenics showed a marked lessening of the epileptiform seizures. Steiner reported that in 6,000 schizophrenics he had observed only twenty convulsions of any type. It was thought that if it were possible to develop epileptiform attacks in schizophrenic patients, such attacks might change the organism to such an extent that it would be unfavorable for the development of schizophrenia. In attempting to choose a drug for this type of treatment, Von Meduna first chose a 25% solution of camphor in oil. This was tried on a series of guinea pigs, and he was able to produce typical epileptiform seizures. In humans, he began by using from four to eight grams of this 25% solution of camphor, and while some of the patients responded with generalized epileptiform attacks, he found that the dose required was so variable, and the injection so painful, that he discarded this drug in favor of metrazol. Metrazol, or penta-

methylenetetrazol, is a synthetic drug which had been used as a cardiac stimulant in Europe for about ten years. This drug had been used to combat the depressive effects of general anesthetics, and had been very useful as a respiratory and as a cardiac stimulant. Meduna found that this drug given intravenously, with an initial dose of 5 cc. of a 10% solution, produced a very severe epileptiform attack. In this country, most workers have used an initial dose of 3 or 3½ cc. There seems to be no definite relationship between the weight of the patient and the dose required to produce an epileptiform attack. Dr. William Menninger reports inability to produce an attack in a 200 pound patient until 17 cc. of the drug were used. Frequently, during the course of treatment, it is necessary to increase the dose, although one case that I observed had ten convulsions without increasing the 4 cc. used at the initial dose. The highest dosage required in this series was 7½ cc.

Much has been said concerning the type of case in which this treatment should be used. Originally it was thought that the best results were obtained in catatonic schizophrenics. Later reports by other men indicate that more frequent remissions were seen in the paranoid type. In Meduna's original paper, he expressed the thought that the type of schizophrenia was of no importance. In his summary he expressed the belief that there is an 80-90% probability of remission if the cases are placed under treatment within six months of the first manifestation of the disease. He felt that cases of four years duration or longer would not show remission. This latter thought was supported when the treatment was used by Laelock and Harris at the Psychiatric Institute of New York where eight chronic cases were treated with no remission.

The administration of metrazol in schizophrenic cases requires no elaborate equipment, and while some clinics and groups have advocated the use of special restraint beds, this seems unnecessary, unless one is dealing with an actively resistant or excited patient. In attempts at restraint made in early groups, several cases of broken bones, dislocated jaws and shoulders were reported. Because of the terrific force of the convulsion, it was thought better to place the patient on the floor or on a mattress. Some attacks are so severe that when the patient is permitted to remain in bed there is danger of throwing himself to the floor.

For the injection of the drug, a 10 cc. syringe, with large needle, 19 or 20 gauge, is required. An ordinary rubber tourniquet is used. Although we made some attempts to take the blood pressure during the convulsive seizure we succeeded only occasionally. However, the pressure is always taken immediately before and after the attacks.

\* Presented before the Section on Medicine of the Indiana State Medical Association at the Indianapolis meeting, October 5, 1938.



A gauze pad tongue depressor, to be used to prevent any injury to the tongue by jaw contraction, is imperative. It is also wise to remove all plates or removable bridges. It has been found by all workers that the drug must be injected into the veins as rapidly as possible. One would prefer that all patient candidates be blessed with large and prominent veins.

The interval between treatments has been variable and arbitrary throughout this country. In this group the injections have been given on alternate days unless there is some specific contraindication. If a convulsion does not result, an increased dose is given on the following day. In some clinics this increased dose is given a few minutes after the unsuccessful one.

It is wise to omit the use of barbiturates, or other sedatives, if possible, for a 24 hour period preceding the administration of the metrazol. It has been noted that the use of such sedatives necessitates a marked increase in the amount of metrazol required to produce a convulsion. As a rule, the first evidence of the seizure will be seen within 10 or 15 seconds following the injection. In only one case have I seen the interval as long as 50 seconds. If there is no evidence of convulsion at the end of one minute, I feel that the dose is not sufficiently large, or that the drug has not been administered rapidly enough. The first evidence of the attack is dilation of the pupils, blinking of the eyes, or a quick, hacking cough, and then, after a very slight delay, there will be fibrillation or localized muscle jerking, followed by a short period of clonic movements, involving usually all of the extremities. Occasionally the clonic movements are slightly more marked on one side than the other. Then occurs a longer period of terrific tonic spasm. This may last from 10 to 30 seconds, followed by a second and longer clonic phase. The period of convulsion, as a rule, lasts about one minute, although the variation is between 10 and 70 seconds. In one case there were continuous convulsive movements for two minutes and thirty seconds. Following the subsiding of the convulsive movements, the patient takes a normal inspiration, and from that time on respiration, while labored, is regular. Before this initial inspiration, there is usually a marked cyanosis. During this period there is frequently a similar period of apnea in the attending physician! As a rule, the patient does not immediately regain consciousness. A period of confusion lasting from 3 to 30 minutes is frequently observed. Subsequently, the patient may be drowsy, restless, overly affectionate, and eventually sleeps for an hour or so. Some therapists believe that many of these patients are frightened by this treatment, and even have some memory of the attack. I have questioned every patient regarding this, and they have stated that they recall nothing following the insertion of the needle, except when there has been an incomplete convulsion. At such times there was a memory of fright or a feeling of impending

disaster. It is true that there has been some evidence of anxiety and a wish to avoid treatment, particularly after the third or fourth injection. In such cases, preferring to avoid physical restraint and force, I have delayed the treatment a day or so, and have found the patient cooperative after this delay.

Metrazol alone was used in this group of cases. I appreciate that in many cases metrazol has been used in so-called insulin resistant cases as an addition to the insulin therapy. Work is now being done combining the two types of therapy in the same patient, and at the same time. This may be of great aid in the excitable and resistive cases. I feel, however, that if the insulin in small doses is given to lessen the shock, physical, clinical, or psychic, the therapeutic effect might also be lessened. However, if the theory that the action of these drugs is based on anoxemia, a prolonged action of the insulin may be valuable, and may support the final shock of the metrazol.

In every case placed under metrazol, the patient was given, in addition to the psychiatric examination, a complete neurological and physical examination. Particular attention was paid to the cardiovascular system. If there was evidence of infection, this was cleared up before treatment was instituted. During menstruation, which occurred during the course of treatment in three patients, treatment was suspended. I believe that careful examination, to rule out cardio-vascular disease, is most important, because the strain on this system by this mode of treatment is most severe. In a series of forty-five cases by Angyal and Gyrfas, there was but one fatal result. In this isolated instance, following the injection of 7 cc. of metrazol, in which there was not a convulsion, the patient seemed to be perfectly normal until one hour later, when she collapsed, and the autopsy revealed an aortic insufficiency. A vascular sclerosis or aneurysm would be subject to a terrific strain during a convulsion, and rupture of the vessels might result, although I know of no such cases reported. In the absence of restraint, the fractures of the leg bones or serious dislocations should not occur. However, dislocation of the shoulder and jaw has been mentioned frequently. In one of my cases there was an apparent dislocation of the jaw and very severe shoulder strain following treatment. X-ray did not reveal any bone pathology, however.

The ages of the patients treated ranged from 18 to 36, and the majority of them were in the third decade. There were six men and eight women. While it was somewhat difficult to definitely classify these schizophrenics, because of the rather early stages, I considered six of them as catatonics, six of the paranoid type, and two simple or hebephrenic.

In this paper, I make no attempt to tabulate the changes that occurred in the psychiatric picture in relation to the number of treatments, or length of time required before the appearance of the remission. While the blood pressure was checked regularly in all cases, and immediately following

the attack reached as high as 204 in one case, I will consider none of these statistics. It was interesting to note in one case that the apex beat of the heart was noted in the nipple line, before the metrazol was administered, and could be plainly seen and felt in the mid-axillary line immediately after the convulsive attack.

Of the fourteen cases included in this series, four are still too recently treated to evaluate the results obtained in them. Of the other ten, all of whom are at least two months past termination of treatment, eight are at home or at work, and the other two have been institutionalized. Four of the eight cases that have shown remission, at the present time, show no evidence of schizophrenia. Two of them have returned to their work as school teachers, one is back in high school, and one is managing her home in a normal fashion.

The case history of one of the school teachers will give a better idea of the type of the case, and the course of treatment. This woman is from a rural community, and is twenty-five years of age. She holds a position as a teacher in one of the primary grades. During the first semester of the last school year, she had carried on her work accurately and successfully, but early in the second semester she began to show definite evidence of a psychosis. She was at first fearful, suspicious, and mildly delusional. During this period there was a definite paranoid trend. When placed in the hospital in April, her appearance was more that of the catatonic type. She became mute, resistive and combative. Before treatment was instituted, she was at times almost catatonic, and it was necessary to tube feed her. She was a large, rugged type, and it required  $6\frac{1}{2}$  ccs. of metrazol to produce the initial convulsion. She was given, in all, eleven convulsions, and required  $7\frac{1}{2}$  ccs. in the latter few. Following the fourth convulsion, she seemed to improve considerably, and would take food when urged by the nurse. However, there was no further improvement, and the family was advised that commitment to the State Hospital would probably be necessary. The family decided to take her home, and she left my care on May 29th. Two months later she came to my office, she was clear and cooperative, and showed no evidence of either catatonic or paranoid trends. However, I was impressed by the fact that she was still mildly withdrawn and shy, in spite of the fact that the family insisted that at home she did not show this defect. Against my advice and better judgment, she returned to her school work on September 6th, and according to weekly reports has been carrying on her work in a normal and happy manner.

The housewife, mentioned previously, has shown a complete remission, and has been in an apparently normal state for eight months. The other two cases showed remission during the period of active treatment, and did not have the apparent delayed remission that the cited case did. Reports from the four cases that are at home are satisfactory,

according to the relatives, but I doubt if these could be considered as full remissions. It is, of course, entirely too soon to draw any conclusions regarding the outcome of metrazol therapy in this group of cases. As a matter of fact, conclusions regarding remission or apparent return to normalcy, depend on the observation of the individual clinician. We have no standard of measurement or laboratory test that we can use to determine if the patient is free from this disease. It has been suggested that some standard group of terms be used to designate improvement or lack of it in these cases. Such terms as: remission, recovery, social recovery, improvement, are suggested by Brown and Orbison, but, as they say, placing the patient in any one of these groups depends entirely on the judgment and experience of the clinician.

All medical men know that schizophrenics do get well, recover, or have remissions, and have in the past. The catatonic type is particularly fortunate in this way. Cases showing a paranoid trend have always produced pessimism. Therefore, it must be with extreme caution that we greet such an apparently hopeful treatment. No satisfactory theory can be advanced for the basis of this treatment. Anoxemia, vascular or chemical changes, psychic shock or change, are supported by some, but as yet there is no real basis or rationale, other than the results, for this mode of therapy. The appearance of a new remedy or form of therapy is, as a rule, greeted by the medical world with lifted eyebrows or shrugged shoulders. Malaria as a treatment for neurosyphilis was overwhelmed at first with skepticism, the common remark being made that the grandiose euphoria of the paretic was to be greatly preferred to the groaning chills of the "ague." Epilepsy had presented a similar picture, though a list of the drugs that have been thought to cure this alleged disease approach the index of the pharmacopeia.

It is with this thought that I approach and attempt to present the history and status of metrazol in the treatment of schizophrenia. Dementia praecox did much to justify the general definition of a psychiatrist as a man who could possibly make a diagnosis, and then do nothing about it.

I feel that in metrazol we have a most useful and important addition to the psychiatric armamentarium. It is true that it is impossible to be dogmatic, because of the short time that these cases have been observed. However, improvement in such a percentage of schizophrenics makes me feel that such treatment is both justifiable and valuable. I am certain in my own mind that we can expect results only in the earlier cases. A certain choice in cases subjected to treatment should be exercised. Only those cases that, before the evident psychotic break, show a normal make-up, should be treated. To remove a patient from a world of fantasy and replace him in an asocial psychopathic sphere would be worthless. No one, at the present time, can answer the pertinent ques-



tion concerning the length or permanency of remission. This treatment has been used to some extent in other functional psychoses, but not in enough to justify any conclusions. It may be that later this type of therapy can be extended to other groups. In view of the past hopeless prognosis, I

believe that we are justified in giving shock therapy to early schizophrenics, when their physical condition is such that they can stand treatment, and when the history of the make-up before psychosis is not psychopathic or criminal.

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## RESULTS OF INSULIN SHOCK THERAPY IN TEN CASES\*

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During the early part of 1937, a group of suitable cases of schizophrenia (dementia praecox) was treated at the Evansville State Hospital by insulin shock therapy.<sup>1</sup> The technique used was that advocated by Sakel in his first description of such treatment.<sup>2</sup> The final results obtained in this group were disappointing, and in September, 1937, it was decided to treat another series of cases, using new modifications of this therapy which had been reported in the literature.

Because of the physical arrangement of the hospital unit at this institution, only a small group of patients could be treated at any one time. In this series an attempt was made to have representative cases of schizophrenia, and cases of various ages and with variable durations of illness.

### TECHNIQUE

After a thorough psychiatric, psychological, and physical examination, the patient was placed under a definite regimen. Routine laboratory work was done in every case, and on a number of patients glucose tolerance tests were performed. The patients were segregated in rooms adapted for this type of treatment. Insulin was given four or five days out of every week, individual responses determining the sequence of rest or treatment days. Breakfast was withheld on days when treatment was administered. The bladder was emptied before starting treatment. Insulin was injected intragluteally on treatment day at six. The beginning dosage was 20 units, which was increased 5 to 15 units each day to the point of coma. As advised

by Larkin,<sup>3</sup> phenobarbital, grains  $\frac{3}{4}$  to  $1\frac{1}{2}$ , was given routinely at six to reduce emesis and convulsions. Temperatures were taken at regular intervals during the day, and during actual treatment the pulse, color, respiration, and motor agitation were checked and recorded each half hour until the conclusion of treatment at ten. Notes were made of utterances by the patients during the actual treatment for possible use in psychotherapeutic sessions later in the course of treatment. Loose restraints were used after the patients became drowsy. Patients usually became comatose between 8 and 8:30. Comas were ended by gavaging the patients, and this was done while the patient was on a back rest, several tongue depressors taped together being used to keep the jaws apart. The solution used to terminate coma consisted of 100 Gms. of sucrose and 75 Gms. of glucose in 500 cc. of water. The intravenous method of termination was used only in emergencies, thus saving veins for the occasions when most needed (Rees and Vander Veer<sup>4</sup>). After the patients had been sufficiently aroused, sweetened chocolate milk was given by mouth, followed by an alcohol rub and change of bedding. The patients were kept in bed until the regular dinner hour, after which time they were allowed up and about the ward. Sodium chloride, grains 16, was given after each meal to offset loss by diaphoresis. Extra nourishment was given at two and four and at bed-time to allay possible after-shock. Alkalies were often given when it was thought that the patient was resistant to insulin.<sup>5</sup>

Patients were weighed every three days. Urinalysis and complete blood counts were done weekly. When not under actual treatment, the patients were given simple tasks and encouraged to take part in the activities of the institution. They were urged to write letters, which were regularly scrutinized for signs of improvement as evidenced by relinquishment of delusional trends.

\* This article represents work done by Drs. Stellner and Watson at the Evansville State Hospital. The authors wish to acknowledge help given by staff and employees in this work. Dr. Stellner now is with the National Training School for Boys, Washington, D. C.

<sup>1</sup> Nisenbaum, H.: Insulin Shock Treatment of Schizophrenia, *Journal Indiana St. Med. Assoc.*, **30**:341-343, 1937.

<sup>2</sup> Wortis, Joseph: On the Response of Schizophrenic Subject to Hypoglycemic Shock. *Jour. Nervous and Mental Dis.*, **83**:497, 1937.

Sakel, Manfred: The Methodical Use of Hypoglycemia in the Treatment of Psychoses, *Amer. Jour. Psychiatry*, **94**:1, 109.

<sup>3</sup> Larkin, E. H.: Insulin Shock Treatment of Schizophrenia, *British Medical Journal*, **1**:745.

<sup>4</sup> Rees, H. H., and Vander Veer, A.: Experiences with Insulin Shock Therapy: *Arch. Neurology and Psychiatry*, **39**:4, 702.

CASE REPORTS

Short case histories are given here of three of the cases treated. These histories are presented to show the type of material used in the second series for insulin shock therapy. Two of the cases presented had previously undergone rigorous therapy; the third was interesting because the illness dated back six and a half years.

**CASE 1.** R. H., white male, aged 22. Diagnosis: Schizophrenia, catatonic. Family history negative for frank insanity. Mother stated to be an oversolicitous individual. Father somewhat neurotic. First signs noted in 1931 at age of 16. While in second year of high school, it was noted that his previously good grades declined. This regression in school grades continued until he refused to go to school in the third year. He became morose and was unduly concerned over sex matters. He made some amulets which he hung about his neck. There was alternate restlessness and apathy. Had always been shy of the female sex. Patient was admitted on June 22, 1931. Institutional stay was characterized by apathy, mutism, and negativism. There were impulsive acts of violence towards self and attendants. He usually sat in a chair with his head bent forward on the chest. Posture on standing was slovenly. Masturbation was frequent. This patient had a previous course of insulin therapy in the spring of 1937.<sup>1</sup> There was improvement during the actual course of insulin shock treatment but he relapsed into his usual state immediately after therapy was concluded.

Psychological examination on October 7, 1937, was unsatisfactory because of motor blocking. The Kent Oral Emergency test gave a mental age of 8 years and 6 months. The same test after conclusion of treatment on March 3, 1938, produced similar results. The psychologist felt, however, that both poor test results were due more to motor blockage and lack of rapport than to deterioration. Routine laboratory work was negative. Blood sugar and glucose tolerance tests were not done.

**CASE 2.** M. H., white female, aged 23. Diagnosis: Schizophrenia, hebephrenic. Family history negative for frank insanity. Sister somewhat erratic and emotional. Senior high school student. School work is stated to have been hard for her. Illness was initiated by morbidness and a general distinterest in daily activities. She became seclusive, tore off her clothing, and was emotionally labile. She threw articles of furniture out of the home and went into violent rages when attempts were made to bathe or dress her. She was admitted on August 27, 1936, after previous private institutional stay. The patient was very restless and untidy in the institution. Her attention could not be gained, and she showed marked irrelevancy and incoherency in conversation. Letters written by her were those of a typical schizophrenic. She pulled out her hair until only short stubs remained on the scalp. Acneform lesions were marked on the face, back, and chest. Menses were irregular.

First psychological examination of this patient on January 17, 1938, showed a mental age average of 9 years and 6 months. The second examination on March 31, 1938, after conclusion of insulin treat-

SUMMARY OF TEN CASES OF SCHIZOPHRENIA TREATED BY INSULIN SHOCK THERAPY

Case	Sex	Age	Duration to Time of Therapy	Type	Hospital Stay Prior to Treatment	Highest Insulin Dose Daily	Weight Gain lbs.	Number of Comas	Change Shown by Psychological Examination	Results*	Hereditary Taint
I	M	22	6½ years	Catatonic	6 years	250	17	29	Same	IV	—
II	M	29	4 years	Paranoid	1½ years	180	31	63	More Sociable	IV	—
III	M	20	9 months	Simple	3 months	270	22	54	Same	III	+
IV	M	16	3 months	Catatonic	1 month	280	33	61	Less Distracted	IV	—
V	F	21	4 months	Paranoid	3 months	230	23	51	Same	IV	—
VI	F	23	6 years	Hebephrenic	1½ years	190	22	49	Improved	I	—
VII	M	27	1½ years	Simple	6 months	320	28	35	Tests Incomplete	II	—
VIII	M	20	2 years	Hebephrenic	1½ years	240	22	46	Better Test Results	IV	—
IX	F	31	9 months	Unclassified	7 months	120	10	15	More Cooperative	IV	+
X	F	27	2½ years	Paranoid	4 months	160	22	46	Less Neuroticism	IV	—

\*MUELLER METHOD OF RECORDING RESULTS:

- I Complete Remission—  
This category represents complete disappearance of schizophrenic symptoms with normal affective relationships, full insight, and ability to return to the normal sphere of work.
- II Incomplete Remission—  
Patients who are able to work but with persistence of any one of the psychic symptoms under I.....
- III Partial Remission—  
Patients able to resume work, symptoms remain without interfering with their daily life.
- IV Unimproved and Requiring Hospital Care



ment, showed a mental age average of 13½ years. It was the psychologist's belief that she had shown definite improvement. She was considered of normal intelligence level, with a superior home environment. Routine laboratory work was negative. Fasting blood sugar: 71.83.

**CASE 3.** H. B., white female, aged 27. Diagnosis: Schizophrenia, paranoid. Patient was a high school graduate, saleswoman, with no psychotic history in family. Her parents were divorced. There had been a gradual personality change dating back 4 years. Frank psychotic symptoms were noted two and one-half years prior to admission. Four years previously she lost her sweetheart and her job, after which she began to show emotional lability. Intimate history revealed that she had always been hypersexual but was able to repress her desires. She used her religion as an aid in repression. As the psychosis developed, there was less repression and her acts approached nymphomania. She became violent, homicidal, and destructive. She accosted strange men on the streets for sexual purposes, and had the delusion that prominent men in her town were plotting against her. Her conduct necessitated commitment on November 15, 1937. Institutional observation revealed that she was markedly delusional, the delusions being bizarre, grandiose, and paranoid in type. She was both obscene and suggestive in conversation and acts. She was sporadically combative and assaultive to attendants, and made obscene overtures to staff doctors. This patient received a course of metrazol therapy two months after admission, but there was no substantial improvement.

Psychological examination before insulin showed a mental age score of 10 years and 3 months, with an I.Q. of 68. Post-insulin examination revealed a mental age of 11 years and 4 months, with an I.Q. of 76. Bernreuter Personality Inventory after treatment showed a decrease in neuroticism, with an average sociability. Memory, reasoning, and judgment were improved. Routine laboratory work was negative. Fasting blood sugar: 83.3.

#### COMMENT

Reproduced herewith is a chart showing pertinent information on cases treated. This is followed by a short discussion of results in the three cases. Two cases which showed sufficient improvement for release are not reviewed; these patients are still at home. In the majority of instances a year has elapsed since conclusion of treatment. None of the unimproved cases later showed spontaneous remission.

The treatment of Case 1 was terminated prematurely because of frequency of unfavorable reactions. There were 29 comas with 250 units of insulin as the highest dose. Reactions consisted of unduly prolonged comas, which frequently lasted throughout the day. On one occasion the duration was 13 hours. The general picture was that of a cerebral embarrassment. There was projectile vomiting, opisthotonos, fixed eyeballs, dilated pupils, marked pallor, and numerous fleeting pathological reflexa. This patient was essentially unimproved by therapy. At the time of this report he is still mute and has lost the weight gained from treatment.

In Case 2, marked steady improvement was shown throughout the course of treatment. Treatment was concluded after 49 comas with the high dosage

of 190 units. There was weight gain of 22 pounds, with physical condition generally improved. The menstrual irregularity persisted. Acneform lesions were much improved but did not entirely disappear. This patient was interesting because of the possible relationship of gastro-intestinal function and the rapidity of arousal from comas. When she did not have a bowel movement the day before treatment, she did not arouse readily. Temperature would go up and vasomotor changes would become more evident. An enema would hasten arousal. The relationship was considered to be more than incidental, and vigilance in regard to this matter was increased. The patient was cooperative in all ways and voluntarily helped with duties on the ward. She gained considerable insight and expressed a wish to continue her education in an attempt to vindicate herself in the eyes of her family, since she had caused them so much trouble during her illness. She fully realized that she had been mentally ill. She attended institutional entertainments, and read the better books in the library. She became immaculate in appearance. The results in this case were surprising, considering the duration of illness. Up to the time of this report this patient has shown the most improvement of any patient treated. She was furloughed in April, 1938, and subsequently discharged. All reports regarding her have been satisfactory since release. Her physical condition remained improved. She has assumed housekeeping duties at home for her father.

In the third case treatments were discontinued after 46 comas. Highest insulin dosage was 160 units. Some improvement was noted in this patient after treatment. There was less sexual content in her statements and she displayed more modesty. She was allowed to go home on a visit, but because of psychomotor restlessness she was returned to the institution after 11 days. She is a better patient in the institution than formerly, but there are still numerous somatic delusions. She was given a short course of metrazol treatment after return but no improvement was noted.

As observed by Mayo Clinic workers,<sup>5</sup> acneform lesions improved under insulin therapy. In the majority of these cases this improvement was only temporary and seemed to follow the general mental and physical well-being.

All patients gained weight under actual therapy, but several patients afterwards declined to a weight even below that prior to insulin therapy. Others maintained a weight which could be considered normal.

It was felt that the insulin dosages necessary for coma production were rather high in this series. This may have been due to the fact that the daily increases were not high enough and that a compensating tolerance was too easily built up by the

<sup>5</sup> Rosenberg, F., et al: The Treatment of Schizophrenia (Dementia Praecox) by Insulin Hypoglycemia, *Proceedings the Staff Meetings Mayo Clinic*, 12:273, 1937.

organism. The patient was considered to have a coma only when he was unresponsive to external stimuli for one and a half to two hours. Mention is made in the literature of cases resistant to insulin.<sup>6</sup> Is this really resistance per se or is it the result of increased endogenous insulin secretion because of stimulation from exogenous insulin?

Routine laboratory work during the actual course of treatment showed changes. The urine was always acid or neutral. Leukocyte counts were moderately elevated, with an increase in the polymorphonuclears. Hemoglobin and erythrocyte counts were fairly stable.<sup>4</sup> Fasting blood sugars before treatment were usually normal or in the lower limits of normal. Pre-insulin glucose tolerance tests showed a slow rise and fall. As suggested by Freudenberg<sup>7</sup>, vitamin B products were used in several instances parenterally in an attempt to shorten delayed recovery from coma. No pronounced results were obtained. Prophylactic use was of no avail.

Adrenalin did not seem greatly to deter or influence convulsions.<sup>5</sup> Use of adrenalin for this purpose was discontinued. Though some writers have looked upon convulsions as not being harmful, and even perhaps beneficial, the risk of dangerous sequelae (status epilepticus) in insulin-induced convulsions was thought too great not to guard against them.

No description of the usual course of reactions is given here, because this is well covered in the literature. Sakel's original description of the reversal of psychosis in the actual course of treatment was not regularly observed.<sup>2</sup> Several patients, while recovering from comas, showed the interesting phenomena of portraying the progression of various age levels. Baby talk was not infrequent, which later became adult in type with a display of adult amorous attention to the nurses. The previous history of these individuals might show them to be

entirely shy of the opposite sex. There was no one definite sign for conclusion of treatment. Lack of physical improvement, relinquishment of delusional and hallucinatory trends, content of letters written, general ward conduct, and degree of gain of insight were all taken into consideration. An attempt was made to give each patient at least a three months course, as advised by James and others.<sup>6</sup> Later in the course of therapy, frequent interviews were held with the patient as a psychotherapeutic measure. Probing was judicious and restrained because it was believed that too persistent inquiry would lead to relapse. Criteria for classification and evaluation of results have been variable. Each writer prefers a different classification. Though suggested early in the use of insulin therapy, it would seem that Mueller's classification of results is as feasible as that suggested by other writers.<sup>6</sup> When there is frequent disagreement as to diagnosis of an individual mental patient, it is no wonder that there is confusion as to evaluation of results. Does not over-optimism perhaps influence opinions as to the category in which a certain result should be placed?

Though the series of cases presented is small, an attempt was made to follow the rules of therapy for each type of schizophrenia.<sup>8</sup> Deeper coma did not influence the several paranoid cases in this series.

#### SUMMARY

Ten cases of schizophrenia treated by insulin shock therapy are reported.

One case had a previous course of insulin and showed no improvement from either course.

Another case had metrazol therapy prior to a course of insulin therapy. No improvement from either method resulted.

Marked improvement, with subsequent discharge, was noted in one case of six years' duration.

Two cases improved sufficiently for release to rural environment.

Five patients were unimproved by the insulin shock treatment.

<sup>6</sup> James, G. W. B.; Freudenberg, R.; and Cannon, A. T.: Insulin Shock Treatment of Schizophrenia, *Lancet*, 1:1101.

<sup>7</sup> Freudenberg, R.: Vitamin B1 and B2 in Insulin Shock Therapy of Schizophrenia, *Wiener Klinische Wochenschrift*, Vienna (Abstract); 4-23-37.

<sup>8</sup> Morse, Robert T.: Insulin Shock Therapy—A Critical Review, *Journ. Kansas Med. Soc.*, 38:248-53.

ATTEND THE ANNUAL SESSION OF  
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## SINUSITIS DIAGNOSIS AND NON-OPERATIVE TREATMENT\*

W. F. GESSLER, M.D.

Fort Wayne

A discussion of this subject must take into consideration bacterial invasion of the sinuses; local reactions, whether true nasal allergy or hydremia resulting from glandular dysfunction; and obstructive or pressure irritation interfering with the normal ciliary activity of the paranasal sinuses. Frequently we find a combination of the above conditions.

It is unnecessary to review the text-book pictures of sinusitis so familiar to all of us. Of greater importance is the recognition of the presence of those other factors which may simulate, mask, and complicate sinusitis.

A complete history, from early childhood, is of utmost importance; the obstructive nasal deformities, adenoids and tonsils; upper respiratory damage produced by the acute exanthemata; the frequency of colds, their duration and the character of the nasal discharge; history of perennial or seasonal nasal allergy; familial tendencies, and the endocrine balance of our patients are but a few points not to be overlooked in the childhood history of our patients.

The diagnosis of acute sinusitis presents no great difficulty. The violence of the symptoms depends upon the virulence of the organism, and the state of the defense mechanism. The inflamed, swollen mucosa obstructing drainage is a familiar picture. The discharge from the infected sinus reveals the organism on direct smear and culture. A cell count shows a preponderance of polymorphonuclear leukocytes. Transillumination, x-ray and, after thorough shrinkage, nasopharyngoscopic examination or cannulization make possible an accurate diagnosis.

In the acute exacerbation of chronic infection the picture is more complicated. The mucosa may be a more dusky red and the discharge heavier. Shrinkage of the mucosa reveals permanent pathology in the form of hypertrophies of the turbinates, hyperplastic or aplastic changes. A deviated septum as well as a nasopharyngitis usually complicates the picture. A cell count and culture of the secretion removed under aseptic precautions help us beyond measure.

The presence of eosinophiles with polys points to a complicating nasal allergy. In many cases after careful testing with allergens we find our patients reacting to bacteria. Unquestionably the sensitization of the patient to bacteria not only increases the severity of the infection but prolongs it.

In the hyperplastic type of sinusitis with mucous polyps or polypoid degeneration of the mucosa, an eosinophilia is usually present.

When the nasal mucosa presents a pale, waterlogged appearance with obstruction and mucoid secretion, we place considerable reliance upon the cell count. Eosinophilia usually means nasal allergy and calls for careful testing. Absence of eosinophiles, with a preponderance of lymphocytes, although not excluding allergy, calls for investigation of the endocrine function. In small children a blood cholesterol above 180, in adults a lowered basal metabolism and high blood cholesterol, accounts for the nasal changes.

Harry L. Huber of Chicago claims that 20% of the rhino-sinusitis cases of the acute or subacute variety can be classified as non-allergic, non-infectious vasomotor rhinitis. The symptoms are sneezing, rhinorrhea, and nasal occlusion appearing upon arising, and lasting until 10 to 10:30 A. M.

The features which identify it are:

1. Occurs in females, chiefly during menstrual life and generally accompanied by sterility, in 85% of the cases.
2. The blood pressure is low (about 100/68).
3. The basal metabolism is low (about minus 15).
4. The pulse is moderately slow (about 66).
5. Nasal smears show eosinophiles in 95 percent of the cases.
6. There is no family history of allergy.
7. Skin tests for allergens are negative.

In these cases Antuiturin-S, in small doses, and thyroid gland are often helpful.

Fortunately the non-surgical handling of sinusitis is gaining in favor and, I might add, is productive of better results than in former years. Unquestionably this is the result of a more thorough understanding of the normal physiology of the upper respiratory tract and an appreciation of what takes place in any departure from the normal state. Added to this, we now recognize those conditions which simulate and complicate sinusitis.

In any regimen of therapy our aim is twofold: (1) to fortify the general defense mechanism of the host, and (2) to combat the infection locally. The first consideration demands that we view our patients not as otolaryngologists, but from the standpoint of the internist.

The following etiological factors, as listed by Coates,<sup>1</sup> must be looked for and considered: improper hygiene, dietary excesses and deficiencies, unfavorable climatic conditions, improper clothing, lowered or excessive humidity and faulty ventilation in the home, allergy, metabolic disturbances, neuro-endocrine imbalances, faults in structural hygiene,

\* Presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at the Indianapolis meeting, October 5, 1938.

septic foci, structural faults in the nose causing blockage, parenchymatous changes in certain viscera (nephrosis), upper respiratory infections secondary to exanthemata or other disease, lack of normal vascular tone, fatigue, faulty elimination, exogenous and endogenous poisons, subnormal oxidation, swimming or prolonged chilling in water; psychogenic conditions, organic or functional, other stresses and strains produced by the present speed of living, producing small grades of exhaustion of the kinetic system (brain, adrenals, thyroid, muscles and liver) resulting in diminished vascular tonicity of the body in general, and the mucosa of the upper respiratory tract in particular.

We immediately recognize that many of these etiologic factors require the attention of the internist. Our part is the correction of nasal deformities and restoring the organ to the best possible mechanical state. Infected tonsils and adenoids and nasal polypi should be removed.

Acute catarrhal sinusitis accompanying acute rhinitis, with fever, malaise, nasal obstruction, and headache is best treated by putting the patient to bed and treating the symptoms. Local therapy is best limited to ventilation of the sinuses with aqueous ephedrine solution up to three percent or neo-synephrine solution one half to one percent dropped into the nares with the head in the lateral, low position. During the exudative stage, gentle suction or suction irrigation is very valuable. In streptococcal infections sulfanilamide should be given immediately and continued until the germ shows no further activity. We feel that sulfanilamide if given early will lessen materially the incidence of complications.

Coates,<sup>1</sup> in a recent article, reports favorable results with parenteral injections of a preparation containing camphor, menthol, iodoform and antimony iodide in peanut oil. Our experience, although limited to less than twenty cases, has proven it to be a valuable therapeutic aid, materially lessening the severity of the infection.

In the purulent types, where the above treatment proves inadequate, irrigation with normal saline, either through the natural openings or otherwise, becomes necessary. Oftentimes by removing the thick exudate, less radical suction is more successful. Parenteral injection of iodine tends to keep the exudate more fluid. The infra-red light apparently exerts a favorable influence upon drainage once it is established.

When the infection does not improve under the above procedures, drainage must be effected by the various surgical procedures which are discussed in another paper.

In those infections where the cytology of the discharge shows eosinophiles present above five percent, a careful review of the history is necessary. Skin and mucous membrane sensitivity must be determined. Especially should we test for bacteria.

Skin reaction in bacteria-sensitized patients may be immediate or delayed. Hyposensitization with the proper vaccine, given intradermally, is followed by marked improvement as early as the second or third injection.

It has been my experience that vaccines have proven valuable only in cases that were sensitized to bacteria. The dosage depends upon the severity of the initial skin reaction. The hyposensitization must be carefully regulated, otherwise the good results are nullified.

As in other allergic types, dicalcium phosphate orally or calcium cevimate parenterally is indicated.

The chronic types of sinus infection call for close study and patience. Often a hopeless case, from a non-operative therapeutic standpoint, rewards our efforts by responding to well-directed therapy. I have seen the chronic purulent antrum of years' standing become symptom free after five to ten instillations of iodized poppy seed oil, and remain so. However, unfortunately, this is not the rule.

The Proetz displacement, using ephedrine one half percent or neo-synephrine one fourth percent, should be thoroughly tried. This should be followed by gentle suction irrigation. Injection of iodine twice weekly is often of surprising value. At the same time we should do our utmost to promote the general resistance of our patients. The vitamins and iron should be given when indicated. In cases of lowered metabolic rate, extract of thyroid gland or iodine is definitely indicated.

R. R. Rathbone<sup>2</sup> treated seventy children suffering from chronic sinus disease by roentgen irradiation. He found 57% cured, 28% improved and 15% not benefited. He considers this treatment ideal for patients with diffuse lymphoid hyperplasia of the mucosa of the antrum or ethmoid sinus. He recommends it in infants and young children with frequent colds, otitis media, and enlarged glands, too young for tonsillectomy. After roentgen treatment, the adenoids shrink twenty-five to fifty percent.

Another important role of therapy is the preparation of our patients for surgery of the nose or sinuses. This is especially true of the allergic cases. We all have had the unpleasant experience of post-operative treatment of allergic cases with its disappointing results. It becomes necessary to hypsensitize these patients to the utmost before attempting surgery. We find other cases with allergic like syndromes produced by points of near contact in the nose. Sudden temperature change, alcoholic indulgence, overloaded intestines and other causes will produce a mucosal congestion resulting in blockade of the sinuses producing a constant headache. Shrinkage of the mucosa with cocaine, ephedrine or neo-synephrine will relieve the symptoms for some time but surgery alone effects a permanent cure.

<sup>1</sup> Geo. M. Coates: The Parenteral Administration of Certain Substances in the Upper Respiratory Infections. *Annals of Oto., Rhin., and Laryngol.*, June, 1938.

<sup>2</sup> R. R. Rathbone: Roentgen Therapy of Chronic Sinusitis in Children. *Am. J. Roentgenol.* July, 1937.



In sinus infections marked by early invasion of surrounding structures such as orbital cellulitis, optic neuritis, basilar syndromes, tubal and middle ear involvement, conservative therapy is often the wise choice. In a great number of cases protein or typhoid vaccine therapy, supportive treatment and, locally, shrinkage and suction irrigation is sufficient. In the remaining cases it gives the host time to organize his protective forces and whatever surgery is necessary is productive of more favorable results.

In this brief and rambling review nothing new is contributed. Most of the thoughts herein contained are those of men of experience more vast than mine. I feel, however, that repetition of these ideas may serve to direct us along channels of right thinking in our problems of diagnosis and treatment. Today we are besieged on all sides by articles on the subject of allergy. To attempt a discussion of sinusitis without considering it would relegate us definitely into the background.

As E. Ross Faulkner<sup>3</sup> so ably stated: "Allergy is a wide field, and looking at it from a biological viewpoint it seems to be a failure of adaptation to some of the minor shocks of our environment, a derangement of the automatic switch board which regulates the balance of the autonomic nervous system. The constitutional vulnerability may be induced by some infection in early life or some sudden or prolonged emotional strain with heredity being a very potent predisposing factor. The exciting causes include physical and chemical agents either from without or from disordered biochemical processes within the body. So the study of each individual case demands a comprehensive understanding of the whole science of medicine."

2902 FAIRFIELD AVENUE

### DISCUSSION

E. L. RIGLEY, M.D. (South Bend): Dr. Gessler has covered his subject very completely and is to be complimented on the excellent presentation of his paper on a subject which has been of much controversy for a long time.

I would like to make a plea for conservatism, especially in the acute stages of a sinusitis. Perhaps many of you men were in Atlantic City in May and heard Dr. Furstenberg's and Dr. Lillie's discussion on osteomyelitis of the skull and the treatment of acute sinusitis. Dr. Furstenberg has reported 58 cases of acute osteomyelitis of the skull; 42 of these cases were directly traced to intranasal or radical sinus procedures. In these acute cases following swimming, with an acute cellulitis, swollen eyes and puffiness of the forehead, simple incision and drainage of the soft parts with as little traumatism as possible to the underlying periosteum most often produces results which are very gratifying to the patient and the physician. The general surgeon would be criticized if he would go

into an abdomen with an acute peritonitis and do any more than establish adequate drainage and leave the finding of the cause until a later date, after the acute symptoms have subsided. I believe the same procedure applies to acute nasal and sinus infections because they are so fulminating and devastating. I recall two cases of an acute osteomyelitis of the face and skull, the most destructive processes I have ever seen, and these resulted from nothing more than the intranasal drainage of the antrum for acute sinusitis.

In a large university health service practice, 300 consecutive cases of acute sinusitis were followed very closely and there was no instrumentation done in the nose and there were uniformly good results in all of these cases.

Dr. Gessler has covered the relations of allergy, endocrine glands, and improper diet balances in their associations with sinus disease. The main thing, I believe, is to try the conservative methods, especially in the acute fulminating cases, and to be governed by the appearance of the patient and the symptoms he or she presents as to when it is necessary to do the bony or more radical work.

JOHN R. FRANK, M.D. (Valparaiso): I want to say a few words about medical treatment of sinusitis, for that is where we often fall down. There are just two words to keep in mind, *ventilation* and *drainage*. If we can't do these by medicines or by diathermy, we must do it by surgery.

When a patient comes into our office with a severe pain and with the nose so swollen that all drainage is blocked, we are faced with a real problem. Our problem is to open that nose thoroughly and keep it open. There is no drug that will do this job so thoroughly as cocaine. After a preliminary spraying with a .5% cocaine and 3% ephedrine solution mixture, I place a small pledget of cotton on a fine applicator, saturated with ephedrine-cocaine mud, at the spheno-palatine foramen. This is the most effective, the least harmful, the quickest and, after all, the least painful way to shrink the mucous membrane of the nose and sinuses. I have no use for colloidal silver in the treatment of the sinuses.

As Dr. Kuhn mentioned a while ago, the best solution for use by the patient is a watery normal salt solution of cocaine and ephedrine. The cocaine should be not over .1% and the ephedrine not over 2%, preferably .5% or 1%.

Diathermy or deep heat is an excellent treatment for relief of severe pain in the anterior sinuses.

Sulfanilamide will temporarily relieve and cure the worst cases of sinusitis but cannot do the work where an operation is indicated for permanent ventilation and drainage.

The antiseptic and stimulating action of the halogen iodine is well known. For the medical treatment of sub-acute and chronic sinusitis, I have developed a method which puts pure iodine vapor into the sinuses, and which in my experience cures, if such is possible, without an operation. I put

<sup>3</sup> E. Ross Faulkner: Problems in Diagnosis and Treatment of Hyperplastic Sinusitis and Allergy. *Annals of Oto., Rhin., and Laryngol.* March, 1938.

2 cc. of a saturated alcoholic (95%) solution of pure iodine crystals into one pint of pure mineral oil. ("Finol," which can be bought at oil stations by the gallon.) This super-saturates the oil and, if desired stronger, one can shake before use. Flavor with menthol (.2%). Place a small folded towel around a No. 47 DeVilbiss electric vaporizer and let the patient make the contact until the vaporizer is thoroughly hot. Pour in about one drachm of the iodized oil, attach the air force and blow into alternate sides of the nose, opening and closing the opposite side of the nose. A six or eight inch extension of the nozzle of the No. 47 vaporizer is highly desirable. I find this treatment is also very good for chronic catarrhal otitis, our most common ear disease.

While I am on this subject of oil, do you use ephedrine inhalant, paying three or four dollars a pint? It can be made up in your own office for about 1/10 of the usual cost, simply by heating the oil to a uniform temperature of about 120 degree but not over 140 degrees, and then adding ephedrine

alkaloid crystals, 3 or 4 grams to a pint. Shake or agitate until the ephedrine melts and dissolves or disappears in the oil. Cool. Too high a temperature or a prolonged lower temperature, say 100 to 150 degrees, will deteriorate ephedrine alkaloid and also cause it to develop a strong ammoniacal odor. When sprayed into the nose it will then produce a painful sensation, depending upon the moisture contained in it. Ephedrine alkaloid melts at 93 to 140 degrees F. but usually around 98 to 100 degrees F. Therefore, be sure that all bottles to contain the oil or inhalant are dry—free from all moisture. I flavor the inhalant with one or two drops of oil of rose-geranium. Menthol, camphor and other aromatic oils only irritate the nose. All oils for nasal treatment should be used as a fine spray; we should never use oils as drops for children because of the danger of getting it down into the lungs, and favoring the development of a pneumonia. Chlorbutanol, .2 to .4% strength, should be added as an antiseptic and a preservative to all the nasal solutions.

## SURGICAL TREATMENT OF SINUSITIS\*

RALPH J. McQUISTON, M.D.

Indianapolis

In considering the surgical treatment of sinusitis we should first understand the histology of the mucous membranes and the pathological changes that take place when an infection occurs in the sinus cavities.

The mucous membrane of the nose and accessory nasal sinus is a ciliated columnar epithelium containing mucous glands and goblet cells. This mucous membrane is a very delicate structure and varies only slightly in different sinuses, this variation being chiefly in the number of mucous glands and goblet cells. When infection occurs, this membrane forms three lines of defense against the invading organisms: the mucous film, the ciliated columnar epithelium, and the subepithelial stroma. The mucous film, containing antibodies, is secreted by the goblet cells and mucous glands. This film is changed constantly by the movement of the cilia toward the respective ostei of the sinuses and into the nasopharynx. The subepithelial stroma or the tunica propria, being the vascular layer, contains fixed connective tissue cells and histiocytes. This stroma is less vascular, less resistant, and thinner in sinuses than on the turbinates.

When acute infection occurs, the mucous membrane becomes swollen with an excessive production of mucous; there is increased vascularity, and an accumulation of histiocytes in the subepithelial

stroma. Later there are losses of patches of epithelium. The edema closes the ostei of the sinuses and interferes with the escape of the products of infection. If the defense mechanism of the body can successfully combat this infection, the mucous membrane will return practically to normal, except in some prolonged infections in which there is a fibrous thickening of subepithelial stroma. However, if this infection is of longer standing, and the infectious products are retained in the sinuses, saprophytic organisms grow in the mucus, and toxic germs are retained in the submucosa. If the infection is further prolonged, there are permanent degenerate changes in the mucous membrane, with the loss of cilia, desquamation of the columnar cells, fibrosis of the subepithelial structures, and hyperplasia of the serous glands, which may lead to cyst and abscess formation. The phagocytic cells carry the toxic germs into the lymphatics, thus causing general systemic disability.

Polypoid degeneration of the mucous membrane is frequently encountered. In most instances it is a form of hyperplastic rhinitis. It is usually significant of a preexisting allergic or suppurative inflammation of the mucous membrane. In those cases due to an allergic rhinitis, an excess of eosinophils can be demonstrated in the secretions or in the mucosa.

Bacteria are always found on the normal mucous membranes, but are kept in abeyance by the normal body defenses. A pure culture of bacteria is rarely found, but the pneumococcus types II, III and

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IV, hemolytic and non-hemolytic streptococcus, staphylococcus, *B. influenza*, and *M. catarrhalis* are most prevalent.

Local factors which predispose to sinus infections are deviations and spurs of the nasal septum, allergic conditions of the nose, and undeveloped conditions of the nasal passages. Foci of infections of the neighboring structures, especially dental infections, are also frequent causative factors. If apical abscesses are present in the upper molar teeth, they may directly involve the maxillary sinuses, and, secondarily, the remaining sinuses of the affected side.

Pre-operative study of the patient should be done by the family physician, along with the findings of the otolaryngologist, to ascertain the relationship of the sinus infection to the patient's general disability. The clinical findings, observations of the return fluid upon sinus irrigations, and the x-ray study determine the type and degree of pathology in each case. Roentgenograms properly made are a valuable aid in the diagnosis of sinus disease. Radiopaque oils are of distinct value in many cases. By their use the cavity of a sinus may be sharply outlined so that the thickness of the mucous membrane and the presence of polypi may be determined. It is very important that sinus x-rays be made by a roentgenologist who thoroughly understands the locations of the various sinuses and applies the proper technic. Most of the x-ray plates made by technicians poorly trained in this field, and brought in by patients, are unsatisfactory and not of aid in making a diagnosis. Some of the sinuses lend themselves more readily to x-ray study than do others, more information being gained in films of the frontal and maxillary sinuses. These give one particularly the size, depth, and contents of the cavities, which are important factors if one is contemplating an operative procedure. Roentgenograms of the ethmoid and sphenoid sinuses are much less definite, and, in these sinuses, one should depend to a large extent upon the clinical findings. However, x-ray studies are a valuable aid and should be combined with the laboratory and clinical picture, in determining the degree of sinus infection and its relationship to the patient's general condition.

In the consideration of the surgical treatment of sinusitis we must be guided by pathology involving the mucous membranes. In the more acute phases, local drainage, aeration and constitutional treatment is sufficient, but in chronic phases of the disease nothing less than complete exenteration of the septic tissue is of avail.

Infection in the sinuses of children is equally as important as that in the tonsils and adenoids, and this must be eradicated in those patients with systemic involvement which are caused by focal infections. Surgical treatment of sinusitis in children is, to a large extent, limited to drainage and ventilation.

It should be routine to thoroughly examine the nose and nasal accessory sinuses in children before

subjecting them to tonsillectomy and adenoidectomy. Much information can be obtained by inspection by anterior rhinoscopy to determine whether or not there is a purulent discharge from the nasal accessory sinuses. It should be remembered that pus draining in the middle meatus must come from the anterior group of sinuses, consisting of the anterior ethmoid cells, frontals, or maxillary sinuses, while drainage posterior and above the middle turbinate comes from the posterior ethmoid cells and sphenoid sinuses. Transillumination and x-ray studies further aid in making a thorough examination. If a sinus infection is found it may be taken care of at the same time that the T. and A. is done. Irrigation of the maxillary sinuses is very easily done at that time, taking advantage of the child's general anesthesia. If the drainage is purulent and does not have on odor, this irrigation, along with the removal of the T. and A., may bring about an uneventful recovery. In some cases the antral contents have a fetid odor, indicating the presence of an anaerobic organism or the possibility of the presence of dental infection. In the case of an anaerobic infection, a window should be placed in the maxillary sinus. If the odor is caused by a dental infection, further study should be made before routine surgery.

It is rarely necessary to do radical surgery in children. It is not advisable to do a radical antrum on a child before the eruption of the permanent teeth, because the tooth buds lie in the floor and lateral wall of the antrum and would be destroyed by this procedure. It is also rarely indicated to open the ethmoid cells unless there is evidence of osteomyelitis. Because of the latent development of the frontal and sphenoid sinuses, they rarely need surgical attention before the age of ten years. Dr. Dean of St. Louis, in 234 cases for routine T. and A., irrigated and cultured the maxillary sinuses and found 15% to contain chronic infection in these sinuses. The same plan has been carried out at the Riley Hospital and the finding showed about 20% of the cases to have sinus infections.

In acute sinusitis, surgery is indicated for ventilation and drainage only and should be made as simple as possible. Symptoms which indicate the necessity of surgical interference in the course of an acute sinus infection are: (1) Intolerable pain which is more marked in cases of involvement of the frontal and sphenoid sinuses, than in the maxillaries or ethmoids; (2) Swelling about the frontal and orbital regions; (3) High temperature; (4) Chills; (5) Dizziness; and (6) Vomiting. When palliative measures have failed to secure drainage and the above symptoms become evident, they may be relieved by surgical drainage. Sometimes the frontal sinus may be satisfactorily drained intranasally by infracting the anterior tip of the middle turbinate to the midline, and removal of some of the anterior ethmoid cells surrounding the nasofrontal duct, or irrigation of the frontal sinus. However, acute purulent frontal sinusitis is more safely drained externally by removing a small but-

ton of bone in the orbital ridge and placing two-way drainage tubes in the sinus externally. The other sinuses are easily drained intranasally by windows into the maxillary sinus, removal of the floor of the ethmoid cells, or removal of the anterior wall of the sphenoid sinus.

It is of great importance that acute sinusitis be properly treated, obtaining ventilation and drainage by either medical or surgical treatment in order to prevent the infection from being prolonged and thus reaching the subacute or chronic stages. If proper treatment is employed in the acute stage the mucous membrane will return to normal with no subsequent recurrence or systemic involvement. Removal of nasal obstructions, such as septal deformities, hypertrophies, polypi, etc., will facilitate better aeration and drainage and by this means prevent the subacute and chronic sinusitis. If the above measures are carried out at the proper time, they may prevent the necessity of radical surgery at a later date.

Deviations of the nasal septum should not be corrected merely because they are departures from the median line of the nose. This has been done on many occasions and has failed to give the expected relief. If the deviation of the nasal septum interferes with the functional activity of the inferior turbinate, or with the ventilation and drainage of the middle meatuses, nasal accessory sinuses, or nasal respiration, it should be treated surgically and will give gratifying results.

In chronic sinusitis we should consider those cases in which the pathology of the mucous membranes of the sinuses is far advanced and contains septic foci of infection. This type of pathology would not yield to mere ventilation and drainage, but does require complete exenteration of the infected mucosa. In most instances more conservative surgical methods, such as removing the obstructions to drainage, have been employed, and failed to relieve the disability caused by the sinus infection before attempting more radical measures. Relative indications for radical surgery are persistent headache or pain, persistent discharge, odor, or general ill-health due to the sinus infection such as nephritis, arthritis, bronchitis, bronchiectasis, bacterial allergies, and eye disorders. Positive indications for radical surgery are osteomyelitis, beginning intracranial extension, benign and malignant tumors, dentigerous cysts, etc.

In deciding upon the type of operation to be performed, the size and shape of the sinuses, as seen by x-ray studies, should be considered. This is particularly true of the ethmoidal and frontal sinuses. The ethmoidal sinuses have been called the "key to the situation" whenever a sinus operation is contemplated. The ethmoidal cells vary greatly in their size and shape, and if there are upward and lateral prolongation of these cells it is impossible, in most cases, to remove all the ethmoidal cells intranasally. The fact that disease of the ethmoidal sinuses has been allowed to re-

main has caused operative procedures on other sinuses to become failures. Most operators at the present time preserve the middle turbinate if at all possible.

The external antrum operation, or Caldwell-Luc, is probably the most successful sinus operation now performed. This procedure gives the operator an excellent view of the pathology within the maxillary sinus and makes complete exenteration of the diseased tissue easily done. The trans-antral approach to the ethmoid and sphenoid sinuses can easily be done through the Caldwell-Luc exposure, and this approach is to be recommended in cases in which all these sinuses are involved.

In radical surgery of the frontal sinus, the size and shape of the sinus is also an important consideration. If the sinus is of moderate size with well rounded margins, the Lynch approach through the floor of the frontal sinus would suffice to remove the diseased tissue. However, if the sinus is large, lobulated, or has sharp corners, the Killian operation may have to be done. This operation, however, often leaves a bad deformity, and is not frequently performed unless an osteomyelitis is present. The external fronto-ethmo-sphenoidal operation is indicated in a very limited number of cases. These operations are usually done in cases in which all the sinuses of the affected side contain advanced pathology, and are usually preceded by the Caldwell-Luc operation.

In consideration of the patients subjected to radical surgery for relief of chronic sinusitis, it should be remembered that they should not be promised that their noses will return to normal and they will never be troubled with sinus disease again. The sinuses, being cavities in the bones of the face and skull, are, as a rule, not collapsed or completely obliterated in any operative procedure, but remain and may subsequently become reinfected. The general public has expected too much of sinus operations, and, when complete cures have not been effected, it has become critical and has caused sinus surgery to fall into disrepute.

The questionable cases, or the borderline cases, should not be subjected to radical surgery. It is this class of patients that does not get the expected relief from surgery and is the one which causes criticism. If the indications for surgery are based upon the actual pathology found in each case, our results will be satisfactory. There have also been objections to repeated operations for chronic sinusitis, but recently more otolaryngologists have been employing the trans-anthro-ethmo-sphenoidal, or the fronto-ethmo-sphenoidal approaches in an effort to eradicate all of the pathology at one stage.

#### SUMMARY

In considering the surgical treatment of sinusitis, one should first understand the histology and the pathological changes that take place when an infection occurs in the sinuses.



The patient should be studied by both the family physician and the otolaryngologist to ascertain the relationship of the sinus infection to the patient's general disability. The clinical findings, observations, and x-ray study determine the degree and type of pathology in most cases.

In considering the treatment, each case must be studied as an individual case by the above findings. In acute sinusitis local drainage, aeration, and constitutional treatment are usually sufficient. In subacute cases, medical and surgical treatment of the nose, including removal of nasal obstructions, drainage of the affected sinuses and such measures, are necessary to give better ventilation to the nasal and paranasal sinuses. This may check the pathological process of mucous membranes and aid the defense of the body in overcoming the infection. In the chronic phases of sinus disease in which the mucous membrane lining the sinuses has been permanently involved, retaining the infectious products within the sinuses, nothing less than complete exenteration of this septic tissue is recommended. In radical surgery the ethmoid sinuses are the "key cells," and condition of these cells may spell success or failure of surgery on the other sinuses.

In children, sinus infection is very common and should be considered as important as that involving the tonsils and adenoids. This infection should be eradicated as well as that of the tonsils and adenoids in those patients with systemic involvements which are caused by focal infection. The surgical treatment of sinusitis in children is, to a large extent, limited to ventilation and drainage.

Patients subjected to radical sinus surgery should understand that the sinuses are not, as a rule, obliterated, but remain and may be subsequently reinfected. Indications for surgical treatment of sinusitis should always be based upon the degree of pathology involving the sinuses and their mucous membranes.

608 GUARANTY BUILDING.

### DISCUSSION

R. R. CALVERT, M.D. (Lafayette): The fundamental principle concerned in all surgical therapy, the establishing of adequate drainage, is just as applicable to diseases of the sinuses as it is to any other region of the body. A knowledge, therefore, of the anatomical relations of the sinuses, the histology of the mucous membrane and the pathological changes incident to infection, is of paramount importance in the administration of proper therapy.

Equally important in therapy is recognition of those pathological changes which represent defense mechanisms on the part of the body to fight disease. It is quite evident that, in days gone by, definite harm was done in many instances by intervening surgically, especially in the acute infections involving the sinuses. We have, therefore, with few exceptions in more recent years, been content in helping nature to organize the first line of

defense by proper attention to the general condition of the patient, bed rest, proper elimination, foreign protein injections and other conservative measures. We do not, therefore, irrigate the sinuses while fever is present, nor do we do more radical procedures in the acute phases of the disease.

The indications of the various surgical procedures have been well covered by Dr. McQuiston and need little elucidation.

I should, however, like to mention one problem which comes within the scope of this paper and in which we are all interested, because of the increase in frequency the past few years, namely, fractures involving the sinuses, sustained in automobile accidents. Although the general surgeon first sees these cases, the otolaryngologist is more and more frequently having to share the responsibility in these cases. The initial treatment is largely concerned with hemorrhage control and the treatment of shock. Most of the fractures encountered are compound and are prone to become infected.

Fractures of the frontal sinus are usually the most dangerous because of the proximity to the brain and the meninges. Meningitis, orbital abscess, brain abscess and osteomyelitis are not infrequent complications. Subsequent to initial treatment, x-ray, preferably stereoscopic films, should be made. Any evidence of posterior wall involvement justifies surgical intervention either through the external wound or through the floor of the sinus to establish drainage. Fractures of the anterior wall, with no deformity or injury to the soft tissues, require only close observation during convalescence. Blood clots in the cavity of the sinus without evidence of wall damage, should be let alone as most of them will absorb.

If the dura is injured, the bony fragments should be removed and the wound drained externally, whereas in fracture of the wall without dural injury, intra-nasal drainage will usually suffice.

Due to its prominence, fracture of the maxilla is commonly met with. In these the orbit as well as the antrum may be involved and restoration of its contour to prevent deformity is essential. In comminuted fractures of the anterior wall, bone fragments and clots may be removed through the wound and the depressed portion of the bony wall pushed back in position. The external wound may then be repaired and ample drainage provided.

Should infection of the antrum develop, it is advisable to wait approximately six days before irrigating, and thus give the body an opportunity to wall off the infection.

Correction of the transverse facial fractures is usually accomplished by wiring of the teeth and the application of orthodontic appliances. This necessitates the assistance of a dental surgeon.

Fractures through the ethmoid region usually occur with injuries of the nose, and treatment of the nasal deformity is usually sufficient. Occasionally it becomes necessary to remove a sequestrum

or drain the ethmoid cells at some subsequent date. Although the ethmoid sinus is frequently involved, the complications arising from them are fewer than might be anticipated.

The sphenoid is rarely fractured, being well protected from external injuries. Infrequently in transverse facial fractures, the greater or lesser wings may be involved but usually require no special treatment in addition to that given for shock. Occasionally basal fractures involve the walls of the sphenoid and the posterior ethmoid cells and thereby damage the optic nerve with a subsequent optic nerve atrophy.

I quite agree with the essayist in his evaluation of the x-ray of the posterior sinuses and more especially of the ethmoids. It seems that a large majority of our reports from the roentgenologist reveal the presence of an ethmoiditis and frequently we can not demonstrate this clinically. It is possible that poor ventilation from various causes may produce this picture and yet give the patient few or no symptoms. An x-ray of the sphenoid is of somewhat more value and more frequently the clinical findings substantiate the roentgen diagnosis.

The use of radio-opaque oils injected into the cavity of the sinuses, or put in by the Proetz displacement method, has been of great aid in the diagnosis of sinus disease. Not only may the mucous membrane thickness be determined but filling defects and the adequacy of drainage may be determined.

JOHN F. BARNHILL, M.D., (Miami, Florida): It is a great pleasure to be among Indiana boys again. I drove a long distance to look you in the face, but had no thought of discussing your papers. However, this paper especially interests me. It was a good paper all the way through.

One part, that which refers to "thorough exenteration of the sinus mucosa," should be critically examined. I fully agree that the mucosa should be thoroughly exenterated, but I am of the opinion that to exenterate it thoroughly in some instances is attended by grave dangers. Everyone who has examined the nasal accessory sinuses extensively knows that some of them, the posterior ethmoids and the sphenoidal sinuses especially, lie in the midst of structures, injury to which would

be most unfortunate. As an instance, it is not rare to find that one or both optic nerves pass forward to the orbit so close to the sinus that nothing more than the thinnest shell of bone and the sinus mucosa separate them, and that in rarer instances the optic nerve is covered only by the mucosa. The danger of thoroughly exenterating the mucosa from the sinus in such cases must be obvious to all, and hence while cure depends upon complete removal of the diseased membrane, the danger attendant upon thoroughness is such that operators hesitate to take the risk. Again, it has been found that the internal carotid artery sometimes makes a curve in the sphenoidal cavity, or posterior ethmoidal cell, and in cases such as this, to be thorough in the removal of the mucosa would almost certainly set up serious hemorrhage.

Then again, there are many ethmoidal cells and sphenoidal cavities which wander widely from their normal situations, and in such instances it is sometimes impossible to reach every nook and corner, or to exenterate thoroughly. It is doubtful, therefore, if the operator very often succeeds in being thorough in the sense that he removes all the diseased mucosa; and it is the failure to remove all the mucosa that accounts for failure to cure in many instances.

In the pursuit of postgraduate studies of the sinuses, students have often said that they exenterate the ethmoids of their patients thoroughly. Such students have been assigned the task of thoroughly exenterating the sinuses on the cadaver and have been given every opportunity to be thorough, but it has been found afterward, on thorough, careful dissection, that in no instance was the exenteration thorough in the sense that every angle and pocket had been entered and every vestige of diseased membrane removed. And so, while Dr. McQuiston is correct in saying that the sinuses should be thoroughly exenterated, the advice can seldom be followed because of abnormalities and dangers that are often encountered, with the result that failure to cure is not uncommon. A thorough knowledge of the anatomy, and skill and caution in operating will enable the operator to avoid some of the difficulties, but it is probable that thorough exenteration will continue to be a dangerous procedure.

#### SULFANILAMIDE FOUND TO HAVE TENDENCY TO SLOW NORMAL HEALING OF WOUNDS

Sulfanilamide tends to slow the normal healing of wounds, and its use to prevent infection following operation may therefore prove to be unwise, it is indicated by experiments reported in *The Journal of the American Medical Association* for June 24.

The experimenters, Eugene M. Bricker, M.D., and Everts A. Graham, M.D., St. Louis, performed their studies on dogs, giving the drug to some and withholding it from others. For about five days the wounds of dogs given the drug healed less slowly and were less strong than those of dogs not receiving treatment.

By the seventh day after operation the wounds of

both treated and untreated dogs were almost equal in healing and strength.

Explaining the reasons for the experiments, the physicians state, "The enthusiasm with which sulfanilamide is being used in the treatment of infections of all kinds has tended to minimize a consideration of the possibility of any harmful effects of the drug. Recently the idea has been expressed by many that it might be used prophylactically before certain operations in which the chance of wound infection may be great. It seemed desirable therefore to determine whether or not this drug has any inhibitory effect on wound healing, especially since antiseptics as a group do have such an effect."



## EARLY DIAGNOSIS AND PREVENTION OF DEFORMITY IN CRIPPLING DISEASES OF CHILDHOOD\*

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This subject has been chosen because in all programs for the care of the crippled child, emphasis is now being placed upon the early diagnosis of crippling disease with treatment to prevent the development of deformity.

"Prevent" comes from the two Latin words *prae* meaning "before" and *venire* meaning "to come." From this derivation "to come before" the word "prevent" is interpreted: "to keep from happening." In discussing disease, Cowper has said, "Prevent the danger or prescribe the cure." This is most applicable to the care of the crippled child. If the danger can be "kept from happening," there will be no necessity to prescribe a cure.

Prevention has been the keynote in public health work for many years past. The result of this program has definitely reflected itself in the decrease of many orthopedic conditions, notably bone and joint tuberculosis and rachitic deformities. In the latter part of the 19th century, from 33½ to 50% of all the orthopedic crippling diseases in childhood were due to tuberculosis; now the incidence is 5 to 10%. The inspection of the herds of dairy cows, the pasteurization of milk, and the isolation of the pulmonary tubercular patient have been largely responsible for this tremendous decrease. The study of rickets, demonstrating that the disease is largely due to a vitamin deficiency, has led to a more general use of balanced diets for infants and the administration of vitamin-containing drugs such as cod liver oil and viosterol, so that now rachitic deformities are seldom observed. Even though the infectious and contagious characteristics of infantile paralysis have been established, they are still being made the subject for extensive research and study. More is being learned about its mode of spread each year. The day is certainly not far distant when the medical profession will intelligently know how to control this disease. It alone is responsible for from 20 to 25% of crippling in childhood.

The office of the general practitioner, or the clinic of the public health nurse, is nearly always the frontier station for the detection of possible crippling conditions in children. Very seldom does the orthopedic surgeon see the patient first. If a crippling disease develops in a child and is not recognized in its early stage in one of these medical outposts, the pathological process may rapidly progress until destruction of a joint or deformity of a bone results. An early diagnosis followed by

simple treatment, such as applying an arm or leg splint, might be the means of preventing the development of a serious deformity. Once the physical abnormality has become fixed, hospital care with surgical interference is usually necessary. With the proper early care, suffering for the child, expense to the family or state and a psychological upset of both patient and family might all be avoided. The practitioner should prepare himself with knowledge which will enable him to participate actively in the campaign to give better care to the crippled child.

This discussion will be divided into three parts, namely:

A. What constitute the most frequently observed crippling conditions of childhood?

B. What are the common crippling conditions most often misdiagnosed?

C. What treatments are indicated to prevent the most common deformities?

A. What constitute the most frequently observed crippling conditions of childhood?

Congenital abnormality, disease, and injury are the most common etiological factors.

(1) Congenital abnormalities. In this group dislocations of the hip and club feet are the best known. Cerebral spastic paralysis, which is the cause of from 25 to 35% of crippling in children, may be of congenital origin. Most of the hopelessly crippled fall under this heading.

(2) Disease. In this group the pyogenic infections of bones and joints, notably osteomyelitis and pyogenic arthritis, constitute the largest number. Tuberculosis now forms a distinctly smaller part than formerly. Infantile paralysis is the most common contagious disease. It causes muscle paralysis by affecting the motor nerves through the anterior portion of the spinal cord, hence the term "anterior poliomyelitis." The developmental and deficiency diseases such as rickets, scurvy, the chondroplasias, fragile bones, etc., form a distinctly minor part of this group.

(3) Injury. In this group fracture deformities of the ununited and malunited types and burns form the greatest number. Obstetrical palsy is to be included and also cerebral spastic paralysis resulting from trauma to the cranium at birth.

Among other crippling conditions whose etiology does not permit inclusion under the above headings are those due to tumors of the bone and soft tissue and postural deformities such as round shoulders, functional scoliosis, flat feet, etc.

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† From the Nemours Foundation.

**B. What are the common crippling conditions most often misdiagnosed?**

(1) The early stages of joint tuberculosis are sometimes very difficult to ascertain. The history of a child having an occasional night cry, losing weight and limping may indicate the early stage of a tuberculous hip joint, in spite of negative roentgenograms. A diagnosis of acute rheumatism may be made and only salicylates prescribed. Proper recognition with treatment at this time might be the means of saving the joint or preventing an extensive tuberculous process.

(2) The early stages of infantile paralysis sometimes are very difficult to diagnose. Often, following a cold with fever, a slight weakness in a leg may be overlooked while the patient is in bed. With convalescence the child may be allowed out of bed and a limp may be noticed when he begins to walk. This may be the first indication that there is a loss of muscle power. If the diagnosis is made early, the chances of the muscle recovery, with proper treatment, are more favorable and the limp may be prevented from becoming permanent.

(3) A beginning scoliosis or lateral curvature of the spine is very often overlooked. The occasion for taking the child to a doctor may be only because he is not up to normal. Proper recognition and handling of the condition in the early stages might prevent an unsightly spinal curvature or "hunchback."

(4) In America, where congenital dislocation of the hip is not common, an early diagnosis often is not made. A slight limp may be neglected and sometimes thought due to a weak ankle. As the child grows older and this becomes more noticeable, with the added element of pain and an inability to play normally, the diagnosis may be suspected but usually is not conclusive until a roentgenogram has shown the dislocation. The unfortunate part is that the child may now be past the age at which the best functional result can be assured with proper treatment.

(5) Early slipping of the upper femoral epiphysis is not uncommon and frequently a diagnosis is not made until a later stage develops. It is most often observed at the age of puberty in children, tall and thin or short and fat, and is more common in boys than girls. When a diagnosis is finally made, there may be a complete slipping of the epiphysis. If the slight limp and pain through the thigh and knee had been properly interpreted in an early stage of slipping, a tremendous amount of future disability could have been avoided.

(6) An early coxa plana, or epiphyseal fragmentation of the upper femoral epiphysis, is not always diagnosed. Sometimes a deformity, which might have been prevented, develops as a result of continued weight bearing. A pulling loose of the epiphysis of the tibial tuberosity at the knee in young, active boys about the age of puberty may

result in pain and disability which could have been minimized with early treatment.

**C. What treatment is indicated to prevent the most common deformities?**

(1) The deformities of infantile paralysis are nearly all preventable. Proper splinting of the muscles from the beginning of the disease until the maximum recovery has been attained is absolutely important. The affected muscles should be kept at rest through this whole period, and no unnecessary strain or tension put upon them. If there is a partial or complete paralysis of the muscles (a) of the lower leg and thigh, the foot should be kept at right angles and the knee straight; (b) about the hip, the joint should be kept in full extension with the foot in a neutral position; (c) of the back or abdomen, the spine should be kept straight, preferably in a plaster shell or on a hyperextended frame; (d) of the shoulder, an abduction or platform splint should be worn; (e) of the elbow, the joint should be kept at right angles; and (f) of the forearm, the wrist should be kept in dorsiflexion with the fingers flexed on a cock-up splint. In the early stages of the paralysis the splints may all be temporary but later they should be changed to permanent braces. At least one-half or more of all the surgical work which is required in patients with infantile paralysis is done because of a deformity which should have been prevented.

(2) It is important that an early diagnosis be made of infection in a bone or joint to prevent both the progress of the disease with destruction of tissue and the development of deformity. Osteomyelitis develops and spreads very rapidly. If an early diagnosis is made and pus is liberated, it often prevents further involvement of bone. It is most important in the case of a pyogenic arthritis to liberate the pus from the synovial cavity early in the process. If this is effected with proper after-care, motion may be saved. If it is impossible to save the joint, it should be placed on a splint in a position for maximum function. With an infection starting in an epiphysis, it is most important to drain the purulent exudate early. Infection will spread rapidly into the joint and may result in its complete destruction in a few days' time. Great care should be taken in any infection about the hip joint, to prevent a pathological dislocation. Traction should be kept upon the leg, with the patient in bed, until all dangers of a dislocation have passed. Syphilitic infections of bones and joints are not common. Early recognition, however, of this condition, with proper anti-syphilitic treatment may prevent a tremendous amount of bony deformity.

(3) Fractures and epiphyseal displacements form a most important group. Fractures about the wrist, forearm and elbow are more common than those of the lower extremity. About the elbow great care must be taken in the supracondylar fracture to accurately replace the fragments so as to prevent



an unsightly cubitus varus or valgus. Circulatory disturbances, leading to a Volkmann's contracture, should be guarded against by carefully watching the circulation in the hand after elbow injuries. In this type of contracture, the forearm and hand are rendered practically useless. Surgical efforts at correction of the contracture of the wrist are not satisfactory. Fractures of both bones of the forearm and slipping of the lower radial epiphysis are often handled improperly, resulting in a bowing of the forearm or in a radial deviation of the wrist. Displacement of the lower femoral epiphysis due to trauma is sometimes followed by marked deformity of the knee. Fracture about the ankle joint may result in a varus or valgus deformity. A fracture of the femur or tibia, which is allowed to heal with angulation or shortening, always results in a disability and, in addition, sometimes a perceptible deformity. In childhood it is very important that all fractures about joints and epiphyses be accurately reduced to prevent the development of subsequent bony abnormality.

(4) Club feet should be treated at birth or as soon thereafter as they are recognized. In the infant or young child periodic, gradual stretching of the contracted ligaments and tendons followed by plaster immobilization may completely correct the deformity. The older the patient is when treatment is started, the less favorable is the prognosis for normal feet.

(5) A congenital dislocation of the hip should be recognized early. If properly reduced and treated, there is an excellent prognosis for a painless, normal-functioning hip. Again the older the child is when the treatment is started, the poorer the prognosis for a favorable end result.

(6) In arthritis very often knees and elbows are allowed to contract. This can be prevented by the application of light splints with the joints in neutral positions. Foot drop should be watched for and prevented by a right angle splint. Shoulders should be kept abducted and externally rotated. Wrists should be kept in a dorsiflexed position with the fingers flexed.

(7) Following all burns great care should be taken to maintain the affected part of the body in a normal position. Flexed fingers can be avoided by maintaining the fingers on a dorsal splint in full extension. Contraction of the knee is preventable by applying traction to the leg.

(8) In cerebral spastic paralysis, if the child can be treated with selective muscle training and special education, marked improvement may follow with prevention of deformities. The young child can often be taught to walk and to do things which may be difficult for him to learn later in life. In selected cases, the earlier the treatment starts the better will be the ultimate result.

(9) Early lateral curvature of the spine should be treated with selected postural exercises. In some instances a well fitting support such as a

plaster jacket, brace or corset should be worn at all times when the body is in an upright position. If the curvature continues to become more marked it may be advisable to immobilize the child on a hyperextended frame. Poor posture, often associated with a functional scoliosis, usually requires only selected exercises.

(10) The developmental changes in the skeleton accompanying rickets can very often be prevented by antirachitic therapy, such as a balanced diet, sunshine, fresh air and cod liver oil or viosterol. Sometimes the use of braces for the rachitic deformities of the spine and legs will prevent these from becoming worse.

Preventive measures are usually easily effected and most often do not require complicated or extensive apparatus. Some of the simplest methods for prevention of deformity and the best splints have resulted from the ingenuity of a "country" doctor. A simple splint for a knee or wrist can be made of plaster or light wood. Foot drop can be avoided oftentimes by pillows against a board at the foot of the bed. An adduction deformity of the shoulder can be prevented by simple pinning of the arm to the bed in an abducted position. Posterior or lateral curvature of the spine can be prevented from developing, or from becoming worse, once it has developed, by keeping the patient flat on his back on a hard bed.

Too much emphasis cannot be placed upon the early diagnosis and the proper treatment of these crippling diseases in childhood. The work of the orthopedic surgeon, who is called upon to care for these handicapped children, would be materially lessened as well as made easier, if, in the early stages, the proper treatment had been given. Making an early diagnosis followed by simple measures to prevent deformity should be the aim of every doctor first called to see a child with a possible crippling disease.

HAVE YOU MADE  
YOUR HOTEL RESERVATION  
FOR THE  
ANNUAL MEETING?

List of hotels and rates  
on page 491.

## THEORETICAL CONSIDERATIONS OF CLINICAL ELECTROCHEMICAL AND ELECTROPHYSICAL PHENOMENA

W. L. GREEN, M.D.

Columbus

That disturbances of electrical potential in the individual cell are the real basis for all pathological changes in the body has long been a contention of this author, and in recent months many developments in clinical medicine and science tend to bear out the correctness of this theory.

It is a noteworthy fact that while medical men the world over have for many years been cognizant of the powers of radium and other radioactive substances in medical therapy, more especially in the treatment of neoplastic disease, so far no one has ever proven definitely why it is that neoplastic tissue is more sensitive to these elements than is normal tissue. It is our opinion that in neoplastic tissue there is already existing an electrical imbalance which lends itself to correction by bombardment with alpha, beta and gamma rays. Likewise, in the field of blood stream invasion and therapy, there have been many attempts to explain the various phenomena of toxins, anti-toxins, antibodies, etc., which along with all the mysteries of Ehrlich's side chain theories have appeared to be cumbersome and inadequate. The mere knowledge that nature moves in the simplest ways to accomplish necessary ends must force the conclusion that the correct answer is yet to be found.

In the light of many recent developments it appears that the true answer to many disease problems will be found in the fields of electrophysics and electrochemistry. In a series of cases reported in 1937<sup>1</sup> the author successfully treated a wide variety of infectious diseases using the same chemotherapeutic agent, Congo Red, in a one percent aqueous solution.

Congo Red was selected for use because of the fact that it is an electro-negative dye and in theory should be effective in the blood stream against invading bacterial organisms carrying an opposite charge. The positive clinical proof of its effectiveness against the streptococcus, meningococcus, pneumococcus, to mention a few, tends to lend strength to the theory inasmuch as Congo Red *per se* is not a bactericidal agent.

It is a well known fact that the nuclei of cells have an electrical sign which is opposite to that of the plasma and it is this balance that determines, in the opinion of the author, the normal physiological functions of the cell. Once this relationship is disturbed, the result is pathology.

Most common of those influences which bring about a change in the electrical nature of the cell is that of bacterial invasion. In bacterial invasion

of blood stream or tissue we have definite hydrogen ion concentration changes which indicate increases in acidity or alkalinity, which are, after all, merely chemical names indicating an electro-negative or an electro-positive state.

It is only reasonable to assume, therefore, that if the electrical sign of an invading organism is known or if the hydrogen ion concentration can be determined in the tissue, the application of electrochemical or electrophysical measures of an opposite nature will tend to restore the normal balance that exists in healthy tissue.

It is our opinion that the remarkable results obtained by chemotherapeutic agents such as sulfanilamide, Congo Red, sulfapyridine, etc., are due to this electric phenomena. Organisms and tissues affected by these agents are known and differentiated by their receptivity to acid or alkali staining reagents which is only a further illustration of their electrical nature.

Weissenberg<sup>2</sup> of Vienna and Hallberg<sup>3</sup> of this country have reported some interesting therapeutic results obtained by placing their patients in a short wave field of either electro-positive or electro-negative nature after first having determined the patient's electrical potential by means of Burr's micro-voltmeter. Hallberg has shown by his work that the crests of the standing wave are electro-positive and the troughs are electro-negative. Their clinical applications are based on this premise.

It is well known that ionizing radiations, alpha, beta and gamma rays, given off by radium and other radioactive materials, have the power to penetrate tissue and to bring about certain changes in ionization that remarkably influence biological processes.

In this field, although leading physicists have given us artificially radioactivated elements of nearly every kind, the surface has only been scratched. By introducing these artificially activated substances into the blood stream it may, in the future, be possible to produce selective deposition of them in affected tissues, i. e., in carcinoma, etc.

In regard to these possibilities, Alvarez<sup>4</sup> speaks

<sup>2</sup> Weissenberg, E.: Biological Action and Therapeutic Indications for Small High Frequency Energy in Reference to Short Waves: *Wien. Klin. Wchnschr.* May 10, 1935.

<sup>3</sup> Hallberg, J. Henry: Ultrashort Wave Therapy from the Selective Aspect.—Trans. Intl. Congress for Short Waves in Physics, Biology and Medicine—p. 337-338, Vienna, 1937.

<sup>4</sup> Alvarez, W. C.: Progress in Clinical Medicine (A Symposium) *Jour. Clin. Med. and Surg.* 46 1, p. 10-11, (Jan.) 1939.

(Concluded on page 556)

<sup>1</sup> Green, W. L.: Congo Red in the Treatment of Certain Infections—*Jour. Ind. State Med. Assn.* 30 10 (October) 1937.



*Program*

90th ANNUAL SESSION

*Indiana State Medical Association*

FORT WAYNE

OCTOBER 10, 11, 12

1939



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FORT WAYNE  
President  
Indiana State Medical Association  
1939





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President-Elect  
Indianapolis



A. F. WEYERBACHER  
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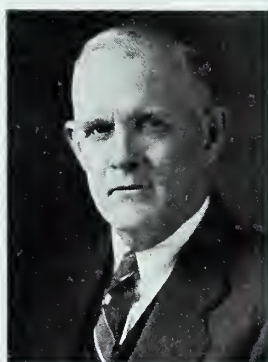
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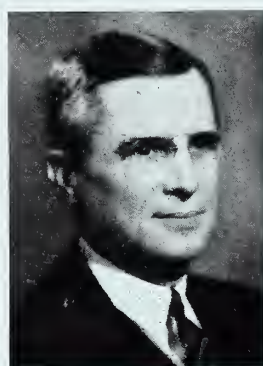
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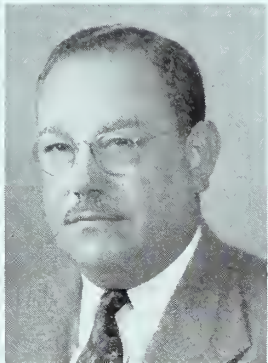
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Fort Wayne



THURMAN B. RICE  
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Chairman, Convention  
Arrangements Committee  
Fort Wayne

## BREVITIES IN THE ANNALS OF THE CONVENTION CITY

LYMAN T. RAWLES, M.D.

The story of the beginning of the City of Fort Wayne is a record of Kekionga, the settlement of the Miami Indians, at the "most famous portage in America." The **EARLY HISTORY** site was a natural location for a city.

Here the St. Mary's and the St. Joseph's rivers meet to form the Maumee river. According to historians, this portage was of great importance to the Indians and possibly to the Moundbuilders before them. The Indians came from along the Wabash river and farther south and west to Kekionga; other tribes from the north and east came to Kekionga which soon became the center for which, by virtue of its geography, it was ideally adapted.

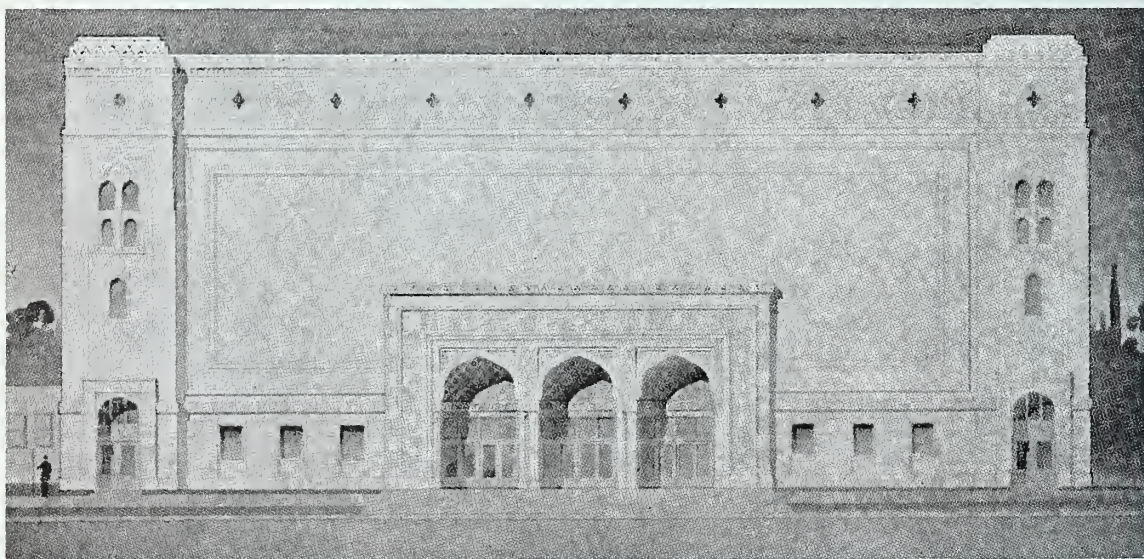
The Algonquin Indians were at the top of the list of all tribes when classified as to intelligence, and the Miami Indians who settled at Kekionga belonged to the Algonquin tribe. The actual date that the Miamis came to the "central village" is not known, but it is believed that the soil in this fertile valley was tilled long before the white man came to the shores of North America.

Chief Little Turtle, head of the Miami tribe, described the site as "the glorious gate through which all the good words of our chiefs had to pass from the north to the south and from the east to the west."

In the later struggle between barbarism and civilization, the community became a pivotal point and was known as the key to the Great Northwest. It became a trading center and a military point of vantage. Fish were plentiful; water power was

abundant; animals could range and feed on the rich prairies. But there were drawbacks, for the country still was inhabited by hostile Indians who actively resented the grabbiness of the white men. Slowly the Indians had been driven westward, and at the site of Fort Wayne the Miami Indians determined to move no farther and to relinquish no more of their land. At this site they established their little village, Kekionga, at the junction of the three rivers, and here they remained undisturbed until the arrival of the French who took possession and established a fort in 1682 and remained in possession until 1760 when the English captured the French forts in the area. The English endured numerous Indian uprisings but in 1763 the fort was lost to the Indians under Chief Pontiac. In that year a severe epidemic of smallpox broke out in the Maumee-Wabash Valley region and many of the Indians and white settlers were victims of the disease.

For many years turmoil and bloodshed continued, making the spot a scene of continuous strife. Even after the Revolutionary War, the site still was held by the Indians with the aid of the English. "Fire water" became an important item in the events of the period, and the Miami tribe continued their efforts to hold what they felt was theirs until 1846 when they were loaded onto canal boats and shipped away to government lands. Occasionally some returned to take up their lives in the community that was home to them, and gradually they accepted the habits of the white settlers. A few of their descendants still are to be found in the community.



SHRINE THEATER—CONVENTION HEADQUARTERS





Statue of  
"Mad Anthony"  
Wayne

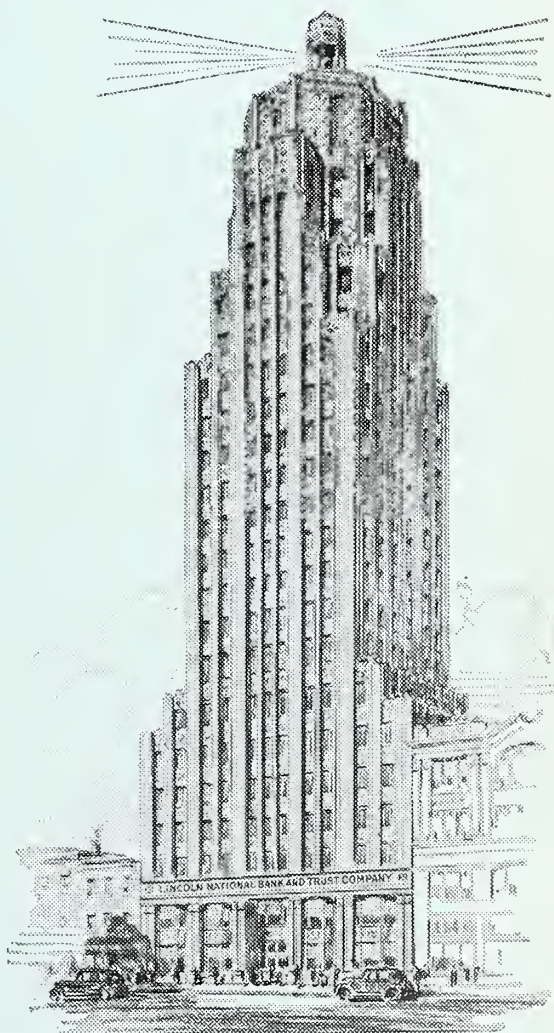
During later years of warfare, President George Washington dispatched three armies to the region to establish what he said would be an "important post for the Union." Two of the armies were defeated, but the third, under "Mad" Anthony Wayne, was victorious over the savages and their English aids. General Wayne was referred to as "The Wind" by the Indians, for they said of him, "He is exactly like a hurricane which drives and tears everything before it." The famous Chief Little Turtle referred to Wayne as "The chief who never sleeps," for the reason that numerous Indian uprisings were unsuccessful because they never caught Wayne unprepared. The fort was dedicated October 22, 1794, and named Fort Wayne in honor of the heroic General "Mad" Anthony Wayne.

Chief Little Turtle became the friend of the white settlers and helped to bring about a permanent peace between the Indians and the settlers. At the time of the smallpox epidemic, Little Turtle was the first to introduce vaccination among the Indians, and he did much to advance his people and their interests. He died in Fort Wayne in 1812 and was buried with full military honors by the commandant of the fort. A much prized sword given to Chief Little Turtle by President Washington, and other relics of a similar nature, may be viewed at the Fort Wayne Historical Museum.

With the coming of additional white settlers into the community, there was need for medical men, for the post surgeon no longer could care for the increasing throng. In 1813, Col. R. M. Johnson, commandant of the fort, had surgeon Dr. Ewing and surgeon's mates Dr. Coburn and Dr. Richardson as his medical staff. During the period from March 1813 to March 1819, the following medical officers were located at Fort Wayne: Anthony Benezet,

Daniel Smith, Daniel Curtis, and John Trevitt. In 1815, Dr. Turner and Dr. Samuel Smith came to Fort Wayne from Lancaster, Ohio, as practitioners.

Fort Wayne was incorporated as a town in 1829 and received its charter as a city in 1840. It prospered with the building of the canal and the later developments of railroad transportation until it has become an industrial center with a population this year of 123,500. At present four railroads enter Fort Wayne: the Pennsylvania, Wabash, Nickel Plate, and New York Central. An electric line connects Fort Wayne with Indianapolis, going through Muncie. Bus lines into the city are numerous, and U. S. Highways 24, 27, 30, and 33 cross the city while State roads 1, 2, 3, 14, and 427 also enter it. The city has a modern airport where TWA planes on the east-west transcontinental line make regular stops.



Lincoln Bank Tower in Fort Wayne  
Indiana's tallest building

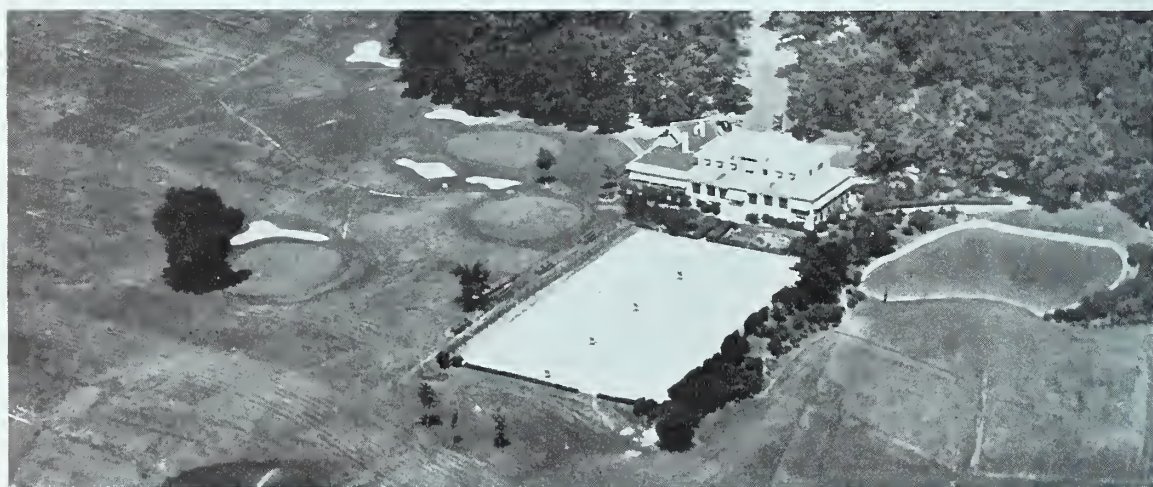




*Lutheran  
Hospital*



*Methodist  
Hospital*



*Aerial view of Fort Wayne Country Club where annual golf tournament will be held.*





Allen County Court House where "Hall of Health" exhibit will be on display.

Fort Wayne's first school was established in 1821 for the Indian children, and white children were permitted to attend upon payment of a small tuition. In 1825, the first school house, made of hewn logs, was erected, and the first high school was built in 1865. Now there are various business and technical schools, including one Lutheran college, three public high schools, three Catholic high schools and academies, one Lutheran academy, twenty-three public grade schools, twenty-two parochial grade schools, one Bible training school, one business college, one technical college, an Indiana University extension center, one art school, a museum in honor of Abraham Lincoln, and the Allen County-Fort Wayne Historical Museum.

The *Sentinel*, one of the oldest newspapers in the Middle West, was established in 1833 and in 1874 the Fort Wayne *News* made its appearance; they were later merged and the city's present evening newspaper is the *News-Sentinel*. In 1863 the *Gazette*, a morning paper, appeared; the *Journal* was established in 1868 and later the two were consolidated and renamed the *Journal-Gazette* which is now the city's morning newspaper.

This year, 1939, marks the one hundredth anniversary of the Allen County Medical Society, an organization that has stood from its inception for those things in medicine which are beneficial to the community in the way of controlling epidemics by vaccination, segregation, and quarantine. It has a cultural

**ALLEN  
COUNTY  
MEDICAL  
SOCIETY**

background gleaned from its former association with teachers of high character during the days of early pre-medic training.

In the early formation of Fort Wayne, four doctors played an important part: Drs. E. G. Wheelock, F. K. Cosgrove, Sr., W. A. Connolly, and M. F. Williamson. The Allen County Medical Society went out of existence and was re-established in 1866, since when records have been regularly kept. Membership in the society in 1866 was 40; now the membership is 163. The society holds three meetings monthly with scientific meetings on the first and third Tuesdays, and a business meeting on the last Tuesday of the month. Present officers of the society are Lynn W. Elston, president; Elmer C. Singer, vice-president; R. L. Hane, secretary; and Emor L. Cartwright, treasurer.

Dr. Philip G. Jones served as mayor of Fort Wayne in 1852. The City Board of Health was established in 1842. In 1849 there began a five-year epidemic of cholera. In anticipation of the epidemic, which was widespread in the South and East, a hospital was established at the county farm in the spring of that year, and a log house at the corner of Calhoun and Berry streets was fitted for the same purpose by James Barrett, a member of one of Fort Wayne's leading pioneer families. Disinfectants were distributed liberally to the townspeople and all precautions were taken, but the disease appeared and continued. Medication seemed to do little good; calomel and cayenne pepper were favorite remedies.

**CHOLERA  
EPIDEMIC**



*Maumee River bridge; new filtration plant in background*

On May 4, 1869, the first of three major hospitals, the St. Joseph's Hospital, was opened. It is now a 300 bed hospital. The Lutheran hospital was opened in 1903, and it now

**HOSPITALS** has 200 beds; the Methodist hospital was opened in 1918 and it now has 100 beds. The Irene Byron Sanatorium for the care of the tuberculous was organized in 1915, started as a tent colony, and now is one of the largest and best equipped institutions in the state for the care of the tuberculous. It was named for the first graduate nurse employed by the institution, Irene Byron, who later lost her life during service with the U. S. Army in the World War.

The Medical College of Fort Wayne was incorporated in 1876 and continued until August 8, 1879, when it was dissolved and a new college organized. In 1906 this college, along with numerous other

small institutions, merged into a larger institution, the Purdue Medical College, which later merged with and became the present Indiana University School of Medicine.

Fort Wayne owns its own electric light plant and its water works. A new filtration plant, erected in 1933 at a cost of a million dollars, stands on the site of the old Miami village. Visitors are invited to go through this modern plant.

#### **MUNICIPAL PLANTS**

The Lincoln Museum, established by the Lincoln National Life Insurance Company of Fort Wayne, has the most complete library of literature dealing with the Great Emancipator ever assembled through private enterprise. It is open to the public and you are especially invited to visit it during the convention.

#### **LINCOLN MUSEUM**



*St. Joseph's Hospital*





*Paul Manship's statue of Lincoln as a youth. The bronze statue is in front of the Lincoln National Life Insurance Company building. The Lincoln Museum is housed in this building and contains the most extensive collection of literature in regard to Lincoln in existence. Every convention visitor will want to spend some time here.*

Fort Wayne is an industrial city and some of the great corporations with plants there include the Fort Wayne Works of the General Electric Company; a division of the International Harvester Company; the Western Gas division of the Koppers Company; the Inca Manufacturing Division of the Phelps-Dodge Cooper Products Corporation; and plants of Allied Mills, Inc., the American Fork and Hoe Company, Boss Manufacturing Company, Essex Wire Company, Joslyn Manufacturing and Supply Company, Minnesota Linseed Oil Paint Company, Truck Engineering Company, Virginia-Carolina Chemical Corporation, and others. A number of firms first organized in Fort Wayne, and still operating there, have become corporations of national importance. These include the Wayne Pump Company, S. F. Bowser and Company, the Tokheim Oil Tank and Pump Company, the General Hosiery

Company, Bass Foundry and Machine Company, Rea Magnet Wire Company, Magnavox Company, Wayne Knitting Mills, Capehart Corporation, American Steel Dredge Company, and others.

Fort Wayne has two radio broadcasting stations—WOWO and WGL—both owned and operated by the Westinghouse Electric Company of Pittsburgh. WOWO is Indiana's most powerful broadcasting station with a power of 10,000 watts.

Fort Wayne is not lacking in recreational facilities. It is the gateway to the famous northern Indiana Lake region. Within a radius of 50 miles are located 200 beautiful lakes. Fort Wayne has 16 parks and playgrounds, three country clubs and four other golf courses, and 16 theaters. One, the Shrine Auditorium with a seating capacity of 1,900, will serve as the convention meeting place.

#### INDUSTRIES

#### RADIO STATIONS

#### RECREATION

# Official Program

## Annual Session

### INDIANA STATE MEDICAL ASSOCIATION

SHRINE THEATER, FORT WAYNE, INDIANA

October 10, 11 and 12, 1939

(Schedule will be carried out on Central Standard Time)

#### MONDAY, OCTOBER 9, 1939

Meeting of state health officers.

6:30 p.m. Executive Committee meeting, private room, Mezzanine floor, Hotel Keenan.

#### TUESDAY, OCTOBER 10, 1939

##### Morning

- 8:00 a.m. Registration starts, foyer, Shrine Theater.
- 8:00 a.m. Opening of scientific exhibit and commercial exhibits, foyer, Shrine Theater.
- 9:00 a.m. Annual golf tournament. Eighteen holes, low gross and handicap medal play, Fort Wayne Country Club. Fees, \$2.00, including greens fee and luncheon.
- 9:00 a.m. Annual trap shoot, Orchard Ridge Country Club.
- 9:00 a.m. Archery contest, Foster Park.

##### Noon

- 12:15 p.m. Golfers' luncheon, Fort Wayne Country Club.
- 12:15 p.m. Trap shooters' luncheon, Orchard Ridge Country Club.
- 12:15 p.m. Archery contestants' luncheon.
- 12:30 p.m. Council meeting, private dining room, mezzanine floor, Keenan Hotel.

##### Afternoon

4:00 p.m. Meeting of House of Delegates, Shrine Theater.

##### Evening

- 6:30 p.m. Annual dinner meeting for women physicians, Hoosier Room, Indiana Hotel. Ben Linvill, M.D., Columbia City. Subject: Travel talk with colored movies.
- 7:00 p.m. Smoker and stag party, Shrine Theater and Chamber of Commerce.
- Award of golf, trap shooting and archery prizes.

#### WEDNESDAY, OCTOBER 11, 1939

##### Morning

- 8:00 a.m. Registration continues, foyer, Shrine Theater.
- 8:00 a.m. Scientific and commercial exhibits, foyer, Shrine Theater.

##### GENERAL MEETING, SHRINE THEATER

- 9:00 a.m. Call to order by E. M. VanBuskirk, M.D., Fort Wayne, president, Indiana State Medical Association.
- Official welcome, Mayor Harry Baals, Fort Wayne.
- Welcome on behalf of citizens, Alva J. McAndless, president, Lincoln Life Insurance Company.
- Greetings and introduction of L. W. Elston, M.D., president of the Fort Wayne Medical Society, and of M. R. Lohman, M.D., H. V. Blosser, M.D., and L. T. Rawles, M.D., co-chairmen of the Committee on Convention Arrangements.
- 9:15 a.m. President's address, E. M. VanBuskirk, M.D., Fort Wayne.

##### SCIENTIFIC PROGRAM

9:30 a.m. Joseph Felsen, M.D., New York.

Subject: **The Newer Concepts of Intestinal Infection.** (Lantern slides.)

**ABSTRACT:** The newer ideas concerning intestinal infection are based upon seven general concepts. These are:



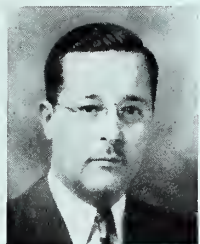
Dr. Felsen

1. Infection of the intestinal wall is rarely due to the action of bacteria within the intestinal lumen directly upon the mucosa. The canal normally contains pathogens or potential pathogens.
2. Bacteria rarely pass through an intact mucosa, but toxins and viruses do and are readily absorbed into the blood stream.
3. In bacillary dysentery, the intestinal ulcers are produced during the process of excretion of the dysentery toxin from the blood stream into the lumen of the bowel.
4. The primary infecting agent in enteritis or colitis is often entirely extraenteric, particularly in the upper respiratory tract. In this sense the intestinal symptoms and signs are but focal manifestations of systemic disease.
5. Diarrhea of infectious origin is essentially a compensatory and protective phenomenon. Its object is to rid the body of toxins.
6. The author postulates the existence of the Indirect Hematogenous Excretory Mechanism and applies it to practical diagnosis and therapy.
7. Preventive, supportive and curative therapy is based upon an understanding of the underlying pathogenesis. Particular



stress is laid upon the new clinical forms of bacillary dysentery and the mode of action of the toxin fractions elaborated in this disease.

10:10 a.m. **Byrl R. Kirklin, M.D.**, Associate Professor of Radiology, University of Minnesota Graduate School, Minneapolis-Rochester.



Dr. Kirklin

**Subject: Some Contributions of the Roentgen Ray to Advances in Diagnosis.** (Lantern slides.)

**ABSTRACT:** Diagnostic radiology continues to progress and keep pace with the rapid advances in other branches of medicine by improving the quality of the service it offers and by extending into new fields. Some of the outstanding and relatively recent contributions of radiology to diagnosis will be presented. By tomography, the use of lipiodol and other aids, the disclosure and identification of intrathoracic diseases, particularly early tuberculosis, bronchiectasis, primary cancer of the lung and other tumors, has become exceedingly reliable. A high degree of accuracy has been attained in revealing bleeding lesions of the alimentary canal and all varieties of early gastric cancer. Small polypoid lesions of the large bowel that formerly were likely to elude observation can now be disclosed almost invariably by the double contrast method of examination. With improved technics, lesions of the small bowel can often be discerned and diagnosed. Frequently low back pain is caused by displacement of intervertebral discs or other abnormalities that can be demonstrated by roentgenologic examination. All these, as well as other advances, will be described and illustrated. In addition, statistics derived from an extensive series of cases will be presented to show the reliability of cholecystographic diagnosis.

10:40 a.m. **Frederick W. Clement, M.D.**, Toledo, Ohio, and **Evan G. Galbraith, M.D.**, Toledo, Ohio.



Dr. Clement

**Subject: Post-Operative Pulmonary Complications.** (Lantern slides.)

**ABSTRACT:** Effect of CO<sub>2</sub> inhalation on the general body metabolism. Respiratory variations following the inhalation of CO<sub>2</sub>. Indication for use of CO<sub>2</sub> inhalations. Post-anesthetic and post-operative complications. Causes of respiratory depression during anesthesia. Purpose of CO<sub>2</sub> inhalation post-operatively. Technique of administration. Danger of overdosage. Summary.

**Subject: Cause, Prevention and Treatment of Pulmonary Atelectasis.**

**ABSTRACT:** Pulmonary atelectasis is a common and serious postoperative complication.

Multiplicity of terms has caused confusion among the profession.

Bronchial obstruction the generally accepted cause. Clinical, pathological and experimental evidence is presented which shows rather conclusively that bronchial obstruction need not be present.

Physiological reasons and steps in development given.

Prevention and treatment discussed. The fundamental principle involved is the maintenance of inflation and deflation of the lungs. CO<sub>2</sub> and O<sub>2</sub> used.

Bronchoscopy seldom necessary.



Dr. Galbraith

11:10 a.m. **Emmet F. Horine, M.D.**, Associate Professor of Medicine, School of Medicine, University of Louisville, Louisville, Ky.



Dr. Horine

**Subject: Psychological Factors in Heart Disease.**

**ABSTRACT:** Ordinarily a cardiac patient is studied purely along structural lines, and in turn some form of chemical treatment is employed. However, the recognition of the psychological factors involved in heart disease actually constitutes a first, and really an essential step in its management. This paper deals with some of the varied psychological problems encountered in heart disease and attempts to solve some of the psychic difficulties.

## Noon

12:15 p.m. Fraternity, class and ex-service men's luncheons and get-togethers.

Meeting of Committee on Secretaries' Conference, Chamber of Commerce.

## WEDNESDAY, OCTOBER 11, 1939

## Afternoon

## SECTION MEETINGS

## Medical Section

**Chairman, B. G. Keeney, M.D.**, Shelbyville  
**Vice-Chairman, W. L. Portteus, M.D.**, Franklin  
**Secretary, John Warvel, M.D.**, Indianapolis

## (SHRINE THEATER)

2:00 p.m. **E. V. Hahn, M.D.**, and **Paul Merrell, M.D.**, Indianapolis.

**Subject: Diagnosis and Treatment of Peripheral Vascular Diseases.**

**ABSTRACT:** The history, physical findings, and diagnostic procedures used in making a differential diagnosis of the peripheral diseases will be given. A number of cases will be discussed, with the type of treatment, be it medical, surgical, or mechanical, described and the rationale for this type of therapy will be given.

2:20 p.m. **Irvine H. Page, M.D.**, and **Kenneth G. Kohlstaedt, M.D.**, Indianapolis.

**Subject: The Sulfapyridine Treatment of Pneumonia.**

**ABSTRACT:** Fifty unselected patients suffering from pneumococcal pneumonia were treated with sulfapyridine in the Indianapolis City Hospital and Methodist Hospital during the fall and winter of 1938-39. Only patients in whom the pneumococci obtained from sputum or lung puncture gave a definite typing reaction (Neufeld) were treated with this drug. In each instance the extent of the consolidation was proved by roentgenographic examination. Blood counts and free blood sulfapyridine determinations were made daily. Frequent blood cultures were obtained on all patients. In addition to the routine urinalysis, renal function was measured by the urea clearance test. Oxygen and other supportive measures were used wherever indicated. The patients were treated in wards without special nursing care. A standard dose of sulfapyridine was given during the first 36 hours of treatment but further administration varied greatly. The factors governing dosage will be presented in detail.

In this series of patients the mortality was 6 percent. Seventeen patients were over 40 years of age; in 23 patients the onset of pneumonia was 3 or more days before treatment was begun. Bacteremia was found in eight patients. When treatment was begun early, clinical improvement was surprisingly rapid. Empyema was observed in three patients and sterile pleural effusion in three patients.

Complications attending the use of the drug were nausea and vomiting, leukopenia, hematuria, anemia, skin rash and mental confusion.

No strict relationship was observed between the level of free sulfapyridine in the blood, the amount administered and the occurrence of toxic manifestations.

2:40 p.m. **Robert V. Hoffman, M.D.**, South Bend.

Subject: **The Serum Treatment of Pneumonia.**

**ABSTRACT:** Newer concepts of pathology as guides to prognosis and type of treatment. Necessity for certain combinations of signs to warrant diagnosis.

Neufeld typing; tolerance tests. Serum dosage.

Adjuvants (saline and dextrose).

Oxygen therapy—Other warning signs preferable to cyanosis. Ways of administering. The simple arithmetic of oxygen want.

3:00 p.m. **Frank H. Green, Jr., M.D.**, Rushville.

Subject: **The Diagnosis and Medical Management of Ectopic Pregnancy.**

**ABSTRACT:** In many instances ectopic gestation is the most spectacular in its pathology, the most sudden in its onset, and the most tragic in its termination of any acute abdominal lesions.

Varieties of extrauterine pregnancy are many for the ovum may be arrested anywhere from the ovary to the uterine cavity or distal to the cavity in the genital tract. The sites of implantation in order of frequency of occurrence are: (1) isthmal, (2) interstitial, (3) ampullar, (4) tubo-ovarian, (5) ovarian. There may be a rupture of the primary implantation into the broad ligament or abdomen.

In the differential diagnosis of ectopic pregnancy things simulating partial or incomplete rupture of the extrauterine sac are arranged in order of occurrence: (1) Intrauterine pregnancy with threatened abortion. (2) Ovarian or tubal hemorrhage not in relation to pregnancy. (3) Acute Salpingitis. (4) Acute appendicitis. (5) Twisted pedicle of an ovarian cyst. (6) Ruptured ulcer. (7) Ureteral colic. (8) Dietl's crisis. (9) Diverticulitis. (10) Volvulus. (11) Enterolith or impaction of the bowel.

Good medical management demands a speedy, accurate differential diagnosis in order to secure early surgery.

3:20 p.m. **Raphael Isaacs, M.D.**, Associate Professor of Internal Medicine, University of Michigan Medical School, Ann Arbor, Michigan.

Subject: **Diagnosis and Treatment of Pernicious Anemia.**

**ABSTRACT:** An adequate diagnosis of pernicious anemia is based on the finding of a macrocytic, oval cell anemia, a wide dispersion in red blood cell size, with a high color index, leukopenia, bilirubinemia, achlorhydria in an individual of a definite constitutional type. The mechanism of the production of the anemia will be discussed in connection with the differential diagnosis from other anemias. Criteria for the differential diagnosis of pernicious anemia, in the absence of anemia, will be given. A statistical analysis of each of these characteristics shows their relative incidence. Neurological symptoms, in varying degrees, appear in about 90% of the individuals. Treatment consists in supplying an adequate amount of liver or stomach material, continually, and in preventing the progress of neurological complications. The place of exercise, medication, rest and physiotherapy will be discussed with specific details as to the method of use.

4:00 p.m. Election of section officers.

4:10 p.m. **Paul S. Johnson, M.D.**, Richmond.

Subject: **Fatigue, Its Causes and Treatment.**

**ABSTRACT:** Attention is directed to certain symptoms which might be mistaken for fatigue. The metabolic changes incident to functional activity produce a sense of fatigue in normal animals. The newer concept of the chemical mediation of nerve impulses is introduced to explain the action of certain drugs in their favorable influence on pathologic tire. Drug action is briefly discussed in some of its more important applications. No case reports are included and the literature of fatigue is freely used and quoted.

4:30 p.m. **Robert G. Moore, M.D.**, Vincennes.

Subject: **The Heart Neuroses, Their Diagnosis and Treatment.**

**ABSTRACT:** A discussion of the subject of cardiac neuroses must be presented in the form of an appeal to the general practitioner of medicine. Nearly 100% of this group of patients present themselves to the general practitioner. They, therefore, become his problems rather than those of the Neuropsychiatrist or the Cardiologist. The discussion is presented with the hope that some interest may be stimulated in an earnest effort to rehabilitate this vast group of unfortunates whom we are too prone to regard individually as "just another neurotic."

4:45 p.m. **R. L. Sensenich, M.D.**, South Bend.

Subject: **Diagnosis and Treatment of Peptic Ulcer.**

**ABSTRACT:** Peptic ulcer as seen in hospital practice by gastroenterologists is most frequently considered to be a chronic disease inclined to continuous symptoms, or to frequent recurrences. Examination of histories reveals a very large number of individuals with clinical diagnoses of peptic ulcer confirmed by x-ray, who have made rapid recoveries under simple methods of treatment while continuing normal life, and have had no recurrence of symptoms. There is reason to believe that there are minimal conditions of ulceration which heal readily although untreated. Frequent occurrence of ulceration in association with other conditions is recognized. Many varying factors no doubt determine the occurrence of ulcer and its course in individual cases. However, further study is needed of those factors influencing cellular physiology in the structures involved, the mechanism of ulcer production, and conditions favorable to healing.

**Afternoon (Wednesday, October 11)**

## Surgical Section

Chairman, **Frank Ramsey, M.D.**, Indianapolis

Vice-Chairman, **William C. Wright, M.D.**, Ft. Wayne

Secretary, **J. H. Clevenger, M.D.**, Muncie

(CHAMBER OF COMMERCE AUDITORIUM)

2:00 p.m. **Clair Ingalls, M.D.**, Washington.

Subject: **Specific Primary Peritonitis.**

**ABSTRACT:** Attention is called to the existence of an infection of the peritoneum which is apparently secondary to no other focus of infection, and which, because of its rarity, is occasionally overlooked in arriving at a diagnosis. The incidence of this disease is not as common as one might be led to believe by the literature on the subject.

Its etiology, symptoms, diagnosis, pathology, complications, and mortality are discussed, based on a series of four cases of the disease, and a rigid review of the literature on the subject.

A basic outline of treatment, which is particularly important now in view of new drugs for treatment of pneumococcal and streptococcal infections, is presented.

2:20 p.m. Discussion: **Gerald F. Kempf, M.D.**, Indianapolis.

2:30 p.m. **Frank Jennings, M.D.**, Oaklandon.

Subject: **Collapse Therapy of Pulmonary Tuberculosis.**

**ABSTRACT:** The basis of this paper is a study of 1171 patients who were discharged from the Sanatorium on or before January 1, 1937.

These patients have been followed for periods ranging from 1 to 20 years. The type of collapse therapy used and the condition of the patients when last heard from will be discussed.

2:50 p.m. Discussion: **Paul D. Crimm, M.D.**, Evansville.

3:00 p.m. **M. S. Schulhof, M.D.**, Muncie.

Subject: **Renal Anomalies from a Surgical Standpoint.**

(No abstract received)

3:20 p.m. Discussion: **L. G. Montgomery, M.D.**, Muncie.

3:30 p.m. **Willis C. Campbell, M.D.**, Professor of Orthopedic Surgery, University of Tennessee College of Medicine, Memphis, Tennessee.

Subject: **Surgery of the Hip Joint.**

**ABSTRACT:** The treatment of affections of the hip joint entails an understanding of mechanical, physiologic and pathologic principles. Embryonic maldevelopment leads to the condition of ischium varum and congenital dislocation of the hip. The bones forming the hip joint develop by inherent growth, and are modified according to Wolf's law of functional adaptation in normal development and disease. Circulation plays an important role in healing of fractures, surgical procedures, and disease processes.

Blood supply to the femoral head is derived from three sources: the ligamentous teres; the capsular vessels, of which the posterior capsular artery is the most important; and the vessels of the medullary canal. The vascular channels must



be considered in the healing of bone after operation, degeneration of the femoral head following trauma, dislocation, fracture, surgery, and in coxa plana, and in the localization of disease about the hip. The mechanics of the hip joint which must be considered in every operative reconstruction consists of: (1) an adequate superior support for the hip; (2) maintenance of femoral length; (3) greatest possible degree of motion; (4) an effective abductor mechanism.

The pathology of the different disease processes such as tuberculosis, osteomyelitis, and different forms of arthritis, is fundamental.

The consideration of these basic principles will lead to a more thorough understanding of the clinical manifestations of the affections of the hip and their treatment.

3:50 p.m. Discussion: L. A. Ensminger, M.D., Indianapolis.

4:00 p.m. Election of section officers.

### Section on Ophthalmology and Otolaryngology

Chairman, B. W. Egan, M.D., Logansport

Vice-Chairman, Donald Dean, M.D., Rushville

Secretary, Robert M. Dearmin, M.D., Indianapolis

(No meeting of this section this year)

### Section on Anesthesia

Chairman, Roy Geider, M.D., Indianapolis

Vice-Chairman, E. T. Zaring, M.D., Terre Haute

Secretary, Lillian B. Mueller, M.D., Indianapolis

(COMMITTEE ROOM, CHAMBER OF COMMERCE)

2:00 p.m. Frederick W. Clement, M.D., Toledo, Ohio.

Subject: Endotracheal Anesthesia.

**ABSTRACT:** Definition of terms. Advantages of endotracheal anesthesia. Disadvantages of endotracheal anesthesia. Indications for use of endotracheal anesthesia. Contra-indications for use of endotracheal anesthesia. Types of catheters employed for endotracheal anesthesia. Methods of endotracheal anesthesia.

Oral route—

Nasal route—

With  $N_2O-O_2$  ether—

With  $N_2O-O_2$

With  $CO_2$

With Pentothal Sodium

With Cyclopropane

Direct nasal intubation.

2:20 p.m. Discussion: Lillian B. Mueller, M.D., Indianapolis.

### Afternoon (Wednesday, October 11)

2:30 p.m. Fred A. Thomas, M.D., Indianapolis

Subject: Complications Following General Anesthesia.

(No abstract received)

2:50 p.m. Discussion: Merrill E. Liston, M. D., South Bend.

3:00 p.m. E. T. Zaring, M.D., Terre Haute

Subject: Who Should Choose the Anesthetic?

**ABSTRACT:** The speaker is unalterably against the choice being made by the patient. Reason: Patient has no more right to choose the anesthetic than the method the surgeon is to use or any other operative technic.

There are many anesthetic procedures, and anesthetists today are trained to examine every patient, when possible, and from these findings should be able to choose the anesthetic best fitted for the patient.

The ideal anesthetic has not yet been discovered.

3:20 p.m. Discussion: Floyd T. Romberger, M.D., Lafayette.

3:30 p.m. Round table discussion.

4:00 p.m. Election of section officers.

### Wednesday Evening, October 11, 1939

7:15 p.m. Annual banquet, Valencia Gardens, Shrine Theater.

Presiding officer, E. M. VanBuskirk, M.D., president, Indiana State Medical Association.

Presentation of certificate of merit to Herman M. Baker, M.D., president 1938, Indiana State Medical Association, by E. M. Van Buskirk, M.D.



Dr. Van Etten

#### Speakers:

NATHAN B. VAN ETTEN, M.D.,  
New York, president-elect,  
American Medical Association.

Subject: (To be announced)



Dr. Lang

DR. GEORGE LANG, University,  
Alabama, Professor of Philosophy,  
University of Alabama.

Subject: "Twentieth Century  
Medicine Man."

### Thursday, October 12, 1939

7:00 a.m. House of Delegates breakfast meeting, Chatterbox, Hotel Anthony. Annual election of officers and selection of convention city for 1940.

Meeting of Council immediately following adjournment of House of Delegates.

8:00 a.m. Registration continues, foyer, Shrine Theater

8:00 a.m. Scientific and commercial exhibits, foyer, Shrine Theater.

### GENERAL MEETING, SHRINE THEATER

9:00 a.m. Joseph E. Schaefer, M.D., D.D.S., Chicago.

Subject: Oral and Plastic Surgery.



Dr. Schaefer

**ABSTRACT:** The plastic corrections will consider the three basic tools at the surgeon's disposal, namely, free transplants of skin, cartilage, and bone.

Secondly: sliding planes of tissue as illustrated by the hare-lip and cleft palate operations.

Thirdly: the pedicle flap for the correction of major defects requiring the transplantation of a mass of tissue greater than can be accomplished by the free graft.

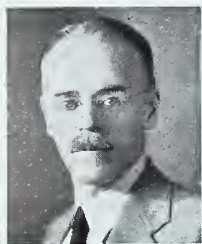
All plastic procedures about the face involve cosmetic considerations; but in recent years, many patients have

applied for correction of facial outlines which primarily involve psychological complexes of personal attitudes and behavior because of a fancied facial defect. We cannot ignore these psychological attitudes as they involve the mental happiness of the patient.

Considerable time will be spent in demonstrating the possibilities of changing facial contours.

The cases will be presented by photographs before and after surgical correction and by means of a colored motion picture.

9:30 a.m. **Paul Dudley White, M.D.**, Boston.



Dr. White

Subject: **The Diagnosis and Treatment of Cardiovascular Emergencies.**

**ABSTRACT:**

- A. Pain in the anterior thorax.
- B. Dyspnea as the first or predominant symptom in cardiovascular emergency.
- C. Palpitation as the initial or predominant symptom in cardiovascular emergency.
- D. Prostration or syncope.
- E. Hemoptysis.

10:00 a.m. **Edmund L. Keeney, M.D.**, Baltimore.



Dr. Keeney

Subject: **The Medical and Surgical Treatment of Severe Bronchial Asthma.**

**ABSTRACT:** A discussion of the medical and surgical treatment of patients with severe bronchial asthma is simplified by dividing the patients into three groups, viz., (1) patients with severe acute bronchial asthma, (2) patients with intractable asthma ("status asthmaticus"), and (3) patients with severe chronic bronchial asthma. The treatment of each group will be considered in the order as named.

10:30 a.m. **Henry B. Orton, M.D.**, Clinical Professor of Rhinology, New York Polyclinic Medical School and Hospital, New York City, Newark, New Jersey.



Dr. Orton

Subject: **Bronchoscopy as an Aid to Treatment.**

**ABSTRACT:** Bronchoscopy has its greatest use in diagnosing and treatment of obscure chest lesions. For foreign bodies lodged in the respiratory tract, it is the only method to be considered in their removal.

With the cooperation of the internist, roentgenologist, bronchoscopist, surgeon and pathologist, the best results are obtained.

The use of bronchoscopy as an aid in the treatment of obstruction to drainage by foreign bodies, neoplasms, asthma, and post-operative pulmonary atelectasis will be considered.

Bronchoscopy is practically a routine procedure as an aid to the doctor in the treatment of the pulmonary abscess, bronchiectasis, bronchial stenosis, tracheo-bronchial diphtheria, and chronic tracheo-bronchitis.

Lantern slides will be shown to illustrate the various diseases above mentioned.

11:00 a.m. **Willis C. Campbell, M.D.**, Professor of Orthopedic Surgery, University of Tennessee College of Medicine, Memphis, Tennessee.



Dr. Campbell

Subject: **Internal Fixation of Fractures.**

**ABSTRACT:** The use of Vitallium (a non-ferrous metal) in orthopedic surgery has recently been introduced by Doctors Venable and Stuck, of San Antonio, Texas. This metal provokes no electrolytic or foreign body reaction in the tissues. It is being used primarily for internal fixation of fractures in the form of plates, screws and nails. It has also been used in a few cases as a lining of joints in conjunction with arthroplasties. A study of the relative value of this metal with other metals in common use will be presented.

# Program

## WOMEN'S ENTERTAINMENT and WOMAN'S AUXILIARY to the INDIANA STATE MEDICAL ASSOCIATION

**TUESDAY, OCTOBER 10, 1939**

9:00 a.m. Registration, foyer, Shrine Theatre.

3:00 p.m. Style Show and Tea, Wolf & Dessauer Auditorium.

7:00 p.m. Dinner and Entertainment, Ft. Wayne Woman's Club. (One dollar per person. Please make reservation in advance with Mrs. H. A. Ray, 325 E. Creighton Ave.)

**WEDNESDAY, OCTOBER 11, 1939**

9:00 a.m. Annual Auxiliary breakfast and business meeting, Hoosier Room, Indiana Hotel, Mrs. M. B. Van Cleave, President, presiding. (Seventy-five cents per person).

Guest Speaker: **Edgar F. Kiser, M.D.**, Indianapolis.

Subject: **"A Brief Sketch of the History of Medicine."**

2:30 p.m. A visit through the Lincoln Museum, and a lecture by **Dr. Louis A. Warren**, Director of the Museum.

Subject: **"The Woman Who Influenced Lincoln Most."**

A tea in the recreational rooms of the Lincoln Life building.

**THURSDAY, OCTOBER 12, 1939**

10:00 a.m. Tour through Wayne Knitting Mills.

Local Auxiliary members will meet visitors desiring to take this tour at the registration desk, foyer, Shrine Theater.

### IMPORTANT!

WOMEN GUESTS at the convention will confer a favor upon Fort Wayne hostesses if they will register immediately upon arrival and make reservations in advance of arrival for dinner at the Woman's Club on Tuesday evening, October tenth, and also for the breakfast meeting of the Auxiliary on Wednesday morning, October 11th, in the Hoosier Room of the Indiana Hotel. **Register at Shrine Theater, Convention headquarters.** Advance registrations may be made with Mrs. Herbert A. Ray, 325 East Creighton Avenue, Fort Wayne.



# Announcements

## REGISTRATION

Registration will begin Tuesday morning, October tenth, at 8:00 a.m. The registration booth will be with the exhibit booths in the Shrine Theater, 411 West Berry Street, Fort Wayne. Go there and register immediately upon arrival. You will be given your official badge when you register; **please wear it!**

\* \* \*

Remember to take your membership card to the convention. It will save time and avoid inaccuracies in the spelling of names. If you have not received your membership card, present a receipt from your county society secretary and you will be permitted to register.

\* \* \*

**Register early!**

\* \* \*

## ESSAYISTS

Essayists are urged to have their papers ready to hand to the reporter after presentation. All papers presented before the meetings of the Indiana State Medical Association become the property of the Association and, therefore, are not to be published or submitted for publication elsewhere than in THE JOURNAL of the Indiana State Medical Association. Your paper should be deposited with the reporter at the meeting immediately after it is read.

\* \* \*

## VISIT FORT WAYNE HOSPITALS

Visit the St. Joseph, Lutheran, Methodist, and Irene Byron hospitals while you are visiting in Fort Wayne. You will be welcome, and the hospitals will appreciate the opportunity to conduct visitors through their institutions.

## HOBBY SHOW

The hobby exhibit will be on display in the Shrine ballroom in the Shrine Theater. If you have not made arrangements to exhibit your hobby, do so at once. Get in touch with Dr. Eugene L. Bulson, 406 West Berry Street, Fort Wayne, NOW..

## FRATERNITY LUNCHEONS

Fraternity luncheons scheduled for Wednesday noon, October 11, 1939, during the meeting of the Indiana State Medical Association:

ALPHA KAPPA KAPPA—Dr. Emor L. Cartright

Place—Hitching Post—Hotel Anthony, northeast corner of Berry and Harrison Streets.

NU SIGMA NU—Dr. Arnold H. Duemling

Place—Berghoff Gardens—Baltes Hotel, southeast corner of Berry and Harrison Streets.

PHI BETA—Dr. Nelson Prentiss

Place—To be determined later.

PHI CHI—Dr. Ernest Carlo

Place—To be determined later.

PHI RHO SIGMA—Drs. Carey B. Parker and Dudley L. Rossiter.

Place—Main dining room, Keenan Hotel, southeast corner of Washington and Harrison Streets.

Fraternity Committee:

CAREY B. PARKER, M.D., *Chairman*

EMOR L. CARTRIGHT, M.D.

ARNOLD H. DUEMLING, M.D.

NELSON H. PRENTISS, M.D.

ERNEST R. CARLO, M.D.

DUDLEY L. ROSSITER, M.D.

## HOTELS AND RATES

Name and Location	Type Room	Without Bath	With Bath
Allen Hotel Wash. & Webster	Single	1.50	2.25-2.50
	Single (with toilet only)		2.00
	Double	2.50	3.25-3.50
	Double (with toilet only)		2.75
Anthony Hotel 125 W. Berry St.	Single	2.00	2.50-3.50
	Double	3.00	4.00-5.50
	Double (twin beds, bath)		5.00-7.00
	Double	2.00-2.50	3.00-3.50
Baltes Hotel 135 W. Berry St.	Single	1.50-1.75	2.00-2.50
	Double (twin beds, bath)		4.00
	Single	1.25-1.50	2.50
	Double	2.50	3.00
Catholic Community Center 220 E. Jefferson	Single	None	3.00-4.50
	Single (with toilet, lavatory)		-2.50
	Double	None	5.00-7.50
	Double (with toilet, lavatory)		-4.50
Indiana Hotel 131 W. Jefferson St.	Single	None	3.00-4.50
	Single (with toilet, lavatory)		-2.50
	Double	None	5.00-7.50
	Double (with toilet, lavatory)		-4.50
Keenan Hotel 1006 S. Harrison St.	Single	None	3.00-4.00
	Double	None	4.00-6.00
	Double (twin beds, bath)		6.00-8.00
	Suites		9.00
Kindler Hotel 213 E. Wayne St.	Single	1.00-1.50	2.00
	Double	2.50	3.00
Randall Hotel 606 S. Harrison St.	Single	1.25-1.50	1.75-2.00
	Double	1.75-2.00	2.50-2.75
Wayne Hotel 119 W. Columbia	Single	1.25-1.50	2.00-2.50
	Double	2.00-2.50	3.00-3.50
Y. M. C. A. Wash. & Barr Sts.	Single (No bath — showers on all floors)		
	No double		
			1.00 members
			1.25 non-members

## Skeet and Trap Shoot

We are proud to say that we have at our disposal one of the very finest, most complete, and efficiently supervised skeet and trap fields in the State of Indiana; namely, the Orchard Ridge Trap and Skeet Club located on the grounds of the Orchard Ridge Country Club.

Since this privilege is ours the Committee in charge is sparing no effort in making arrangements to put on an unexcelled shoot.

It is our plan to have the fields available from 11:00 a. m. until dark. The events are to start at 1:00 p. m. A luncheon will be served from 12:00 noon on, with club house privileges.

At the present writing it looks as if there will be plenty of exceptionally high grade prizes.

For all who care to demonstrate their superiority over their colleagues at the art of pigeon breaking, to all those who are interested, an invitation is extended to attend so that you may join in a swell shoot on an extra fine field.

### PROGRAM

#### Skeet

50 targets, all bore.

50 targets, small bore 20-28-410.

#### Trap

100 targets—16 yard rise.

Handicap—50 targets—yardage to be determined by score on first event and known ability.

Doubles—(if desired by shooters) 25 pair—16 yard rise.

### DIRECTIONS FOR REACHING THE SKEET CLUB

Go south on Broadway to the 3500 block, turn right, cross the bridge, go west on Bluffton road to Waynedale. Turn right at the Tower filling station. This road will take you directly to the Orchard Ridge Country Club. The route will be marked.

J. E. MCARDLE, M.D., *Chairman*,

W. F. ENGLEBERT, M.D.,

J. F. HAVICE, M.D.,

A. E. MORAVEC, M.D.

## Golf

The State Medical Association Golf Tournament will be held at the Fort Wayne Country Club, Tuesday, October 10th, 1939, starting at 8:00 a. m. and thereafter. Luncheon will be served at the clubhouse at 12:15 p. m.

**Directions to the Country Club:** From the Shrine Temple go south two blocks and turn right on West Washington Boulevard. Continue west through Sweetney Park on Highway No. 24, through underpass of the Pennsylvania railroad. At the first paved road turn left and proceed through Wildwood Park. Follow the pavement and signs for a distance of about two miles to the golf course. Free transportation from

the Shrine Temple will be available from 8:00 a. m. to 11:00 a. m.

**Fees:** \$2.00 for greens fee and luncheon.

**Prizes:** (1) The usual low gross and low net prizes.

(2) The longest drive on Hole No. 9.

(3) The closest to the pin on Hole No. 3.

(4) The lowest number of putts.

(5) Many other prizes.

Especially interesting this year is the permanent trophy or cup presented by Dr. B. W. Rhamy, co-chairman of the Golf Committee, and Dr. E. M. VanBuskirk, president of the Indiana State Medical Association. "At long last," the golfer who is fortunate enough to have low gross will be able this year to have his name engarved on this cup, which he retains in his possession for one year. This, in itself, not to mention many other valuable prizes, should encourage a good attendance on the golf course.

All prizes will be awarded Tuesday evening at the Annual Smoker. To be eligible for a prize, golfers should attend the Smoker.

The Committee has spent considerable time and effort to make this a good tournament; therefore, our advice is: **PLAY GOLF!**

E. C. SINGER, M.D., *Chairman*,

B. W. RHAMY, M.D., *Co-Chairman*,

R. J. BERGHOFF, M.D.,

A. N. FERGUSON, M.D.,

J. C. LILL, M.D.,

E. G. MCARDLE, M.D.,

E. H. SCHEGEL, M.D.,

E. N. MENDENHALL, M.D.

Here is a photograph of the new golf championship cup which has been presented to the Indiana State Medical Association by Drs. B. W. Rhamy and E. M. Van Buskirk of Fort Wayne, commemorating Dr. Van Buskirk's presidency. Each year the winner of the low gross score for eighteen holes will have his name and the year inscribed on the cup and will have custody of the cup for that year. A few weeks before the time of the annual meeting each year, the holder of the cup is to turn it over to the headquarters office or to the chairman of the golf committee for the new tournament.



The cup is gold plated and is 22½ inches high. The donors express the hope that the competitors will not think of the beauty or value of the cup but rather that the usual competitive traditions which inevitably accompany a cup of this kind will grow greater as the years go by. This year's golf chairman, Dr. Elmer Singer, now has the cup in readiness for presentation to its first winner.

Drs. Rhamy and Van Buskirk have pledged themselves to have the winner's name inscribed on the cup each year.

**Whose name will be first?**



## COMMITTEES FOR THE FORT WAYNE CONVENTION

**GENERAL COMMITTEE:** Chairman, M. R. Lohman. Committee members: H. V. Blosser, Lynn Elston, L. T. Rawles.

**HOTELS:** Chairman, L. S. McKeeman. Committee members: C. J. Cooney, I. W. Ditton, S. R. Mercer, W. J. Rissing, W. H. Vance.

**BANQUET:** Chairman, A. J. Sparks. Co-chairman, K. C. Eberly. Committee members: R. W. Elston, N. L. Salen, L. Shinabery, W. E. Thornton, S. G. Welty, J. L. Wyatt, Noah Zehr.

**STAG:** Chairman, A. J. Sparks. Co-chairmen: G. A. McDowell, R. H. Miller. Committee members: Harry Aldrich, D. H. Benninghoff, C. C. Bosselman, R. H. Brosius, Wayne Glock, H. C. Harvey, W. E. Kruse, A. R. Savage, D. W. Schafer, I. H. Willett, E. S. Zweig.

**HALL:** Chairman, A. J. Sparks. Committee members: M. B. Catlett, J. E. Conley, B. M. Edlavitch, E. H. Kruse, W. B. Rice, H. M. Senseny, A. C. Worley.

**REGISTRATION:** Chairman, J. W. Bowers. Committee members: G. T. Bowers, Doster Buckner, A. P. Hattendorf, O. J. Miller, C. F. Moats.

**GOLF:** Chairman, E. C. Singer. Committee members: R. J. Berghoff, A. N. Ferguson, J. C. Lill, E. G. McArdle, E. H. Mendenhall, B. W. Rhamy, E. H. Schlegel.

**TRAP SHOOT:** Chairman, E. G. McArdle. Committee members: W. F. Englebert, J. F. Havice, J. E. McArdle, A. E. Moravac.

**ARCHERY:** Chairman, A. R. Chambers. Committee members: H. J. Oyer, H. V. Scott.

**HOBBIES:** Chairman, E. L. Bulson. Committee members: W. W. Carey, C. R. Dancer, H. E. Glock, N. A. Rockey, J. T. Short, P. S. Titus.

**EXHIBITS:** Chairman, R. W. Wilkens. Committee members: J. R. Adams, K. M. Beierlein, A. H. Duemling, N. H. Gladstone, M. Rothberg.

**MILITARY SERVICE:** Chairman, Juan Rodriguez. Committee members: H. O. Bruggeman, C. H. Dancer, N. H. Prentiss.

**WOMEN PHYSICIANS:** Chairman, Ruth M. Hoetzer. Committee members: Jessie Calvin, Kathryn Whitten, Bernice Williams.

**FINANCE:** Chairman, M. R. Lohman. Committee members: D. F. Cameron, H. A. Ray, J. C. Wallace.

**RECEPTION:** Chairman, L. W. Elston. Co-chairmen: J. M. Dinneen, C. H. English, Allen Hamilton, Morse Harrod, J. W. H. Ranke. Committee members: M. R. Adams, P. W. Bailey, J. E. Bickel, T. H. Borders, H. B. Bundrant, Elizabeth Burns, H. R. Chester, J. C. Cowan, L. L. Culp, C. W. Dahling, Palmer Eicher, H. W. Foy, L. K. Gould, John Hayes, D. D. Johnston, E. J. Kalal, J. W. Kannel, J. H. Kilmer, Arthur Leiter, A. H. MacBeth, Bertha Goba MacBeth, C. G. Miller, G. E. Moats, Edward Moser, S. E. Mentzer, K. F. Perrin, A. J. Roser, C. A. Savage, E. M. Schellhouse, M. F. Schick, A. E. Stoler, G. A. Smith, L. E. Somers, H. E. Steinman, John Swanson, J. W. Thimlar.

**FRATERNITIES:** Chairman, C. B. Parker. Committee members: E. R. Carlo (Phi Chi), E. L. Cartwright (Alpha Kappa), A. H. Duemling (Nu Sig.), D. L. Rossiter (Phi Rho), N. H. Prentiss (Phi Beta).

**PUBLICITY:** Chairman, R. L. Hane. Committee members: J. H. Baltes, W. W. Duemling, S. P. Hoffman, H. A. Meyers.

**HOSPITAL SCIENTIFIC EXHIBITS:** Chairman, R. W. Wilkens. Co-chairmen: L. P. Harshman (Indiana State Home for Feeble-Minded Youth), M. H. Draper (Irene Byron Sanatorium), M. F. Popp (Lutheran Hospital), M. Velkoff (St. Joseph hospital), D. I. Schwartz (Methodist Hospital). Committee members: W. F. Gessler, O. T. Kidder, C. O'Rourke, M. F. Porter, C. J. Rothschild.

**LANTERNS:** Chairman, W. C. Wright. Committee members: A. C. Bartholomew, M. E. Glock, D. H. McKeeman, E. W. Nahrwold, R. W. Terrill, A. H. Williams.

**TELEPHONE:** Chairman, R. W. Garton. Committee members: Paul Bailey, W. R. Clark, G. G. Lenk.

**WOMEN'S ENTERTAINMENT:** Chairman, H. L. Murdock. Co-chairman, Mrs. E. M. Van Buskirk. Committee members: Mrs. D. F. Cameron, Mrs. E. L. Cartwright, Mrs. L. W. Elston, Mrs. R. L. Hane, Mrs. M. R. Lohman, Mrs. H. L. Murdock, Mrs. L. T. Rawles, Mrs. A. J. Sparks.

**AUTOMOBILES:** Chairman, L. P. Harshman. Committee members: J. H. Baltes, R. J. Berghoff, A. H. Duemling, A. M. Fichman, H. M. Fowler, L. K. Gould, K. C. Hardesty, R. E. Holsinger, E. A. King, E. A. Kruse, O. J. Miller, L. W. Mueller, H. A. Ray, W. B. Rice, N. A. Rockey, M. Rothberg, H. W. Salen, D. W. Schafer, P. L. Stier, S. G. Welty.

## Hall of Health

With the approval of the Bureau of Publicity and the Executive Committee of the Indiana State Medical Association, a Hall of Health will be staged during the time of the 90th annual meeting, October 10, 11, 12, in Fort Wayne. Arrangements for this educational exhibit, which will be open to the public, are in charge of a committee of the local Society.

The rotunda and adjoining spacious halls of the courthouse, which is centrally located and affords excellent space both for accommodations of exhibitors and large numbers of the public, has been generously provided by the county commissioners.

The exhibit will follow the general scheme of displays of the progress of the medical sciences as presented at the Century of Progress and the New York World's Fair. Emphasis will be placed on the scientific discoveries that make for the protection of the public health as they have been accomplished by medical men in their search for scientific truth. The Hall of Health will be dedicated to the public good and will be open for inspection from ten o'clock in the morning until nine o'clock in the evening of each day of the meeting. Demonstrators and lecturers will be in attendance with each exhibit and, in addition, a number of moving pictures will be shown.

Outstanding exhibits indicating the progress that has been made and the progress that is to come in the prevention as well as the correction of diseases have been secured, with the recognition of the necessity of a continuously growing cooperation between the public and the doctors of medicine and dentistry. Education of the public in the many aspects of medicine is essential and this task devolves upon the physician.

The Hall of Health is one of the efforts which the physicians of the State of Indiana, in cooperation with public health officials, pharmacists, dentists, nurses, and manufacturers of medical appliances make to bridge the gap between the layman and the doctor. The doctor is the logical teacher in matters of the function and dysfunction of the human body. He is the trained expert in the individuality of man in health and illness. He is best equipped to act as an educator in the field of health and disease, since he stands in the front line in the fight against disease and in its prevention. It is the prime object of the Hall of Health to bring people to a realization of these facts so that they will not waste money or precious time on useless and often harmful advice.

Physicians, their families and friends are most cordially invited to view these outstanding exhibits, some of which are being presented for the first time.

**There will be no admission charge.**

## OFFICIAL CALL TO THE HOUSE OF DELEGATES FORT WAYNE SESSION

The next annual session of the Indiana State Medical Association will be held at Fort Wayne, October 10, 11 and 12, 1939.

The House of Delegates will be constituted as follows: Marion county, twelve delegates; Lake county, four delegates; Allen county, three delegates; St. Joseph county, three delegates; Vanderburgh county, three delegates; Tippecanoe county, two delegates; Vigo county, two delegates; the other seventy-six county societies, each one delegate; thirteen councilors; the ex-presidents, namely: C. S. Bond, W. N. Wishard, J. B. Berteling, Joseph R. Eastman, W. H. Stemm, C. H. McCully, W. R. Davidson, E. M. Shanklin, Charles N. Combs, Frank W. Cregor, George R. Daniels, Charles E. Gillespie, Angus C. McDonald, A. B. Graham, F. S. Crockett, J. H. Weinstein, E. E. Padgett, R. L. Sensenich, and Herman M. Baker. In addition to these, the president, secretary, and treasurer, all without power to vote except in case of a tie, when the president shall cast the deciding vote.

Blank credentials have been sent by the secretary to each county society, and the properly executed credentials should be mailed to Thomas A. Hendricks, 1021 Hume Mansur Building, Indianapolis, or brought to the session. No delegates will be seated unless wearing the official badge.

The House of Delegates will convene promptly at 4:00 p. m., Tuesday, October 10, in the Shrine Theater, and again at 7:00 a. m., Thursday morning, October 12, in the Chatterbox, Anthony Hotel (breakfast meeting).

The order of business will be as follows:

1. Call to order by the president.
2. Roll call and seating of qualified delegates.
3. Reading of the minutes of previous meetings.
4. Appointment of reference committees.
5. Report of executive secretary.
6. Report of the treasurer.
7. Report of the chairman of the council.
8. Reports of standing and special committees:
  - (1) Credentials.
  - (2) Executive.
  - (3) Arrangements.
  - (4) Scientific Work.
  - (5) Public Policy and Legislation.
  - (6) Bureau of Publicity.
  - (7) Civic and Industrial Relations.
  - (8) Medical Education and Hospitals.
  - (9) Public Relations.
  - (10) JOURNAL Publication.
  - (11) Necrology and Historian.
  - (12) Secretaries' Conference.
  - (13) Scientific Exhibit.
  - (14) Veterans' Affairs.

- (15) Permanent Study Committee on Health Insurance and National Medical Situation.
- (16) Study of High School Athletics.
- (17) Mental Health.
- (18) State Fair.
- (19) Prevention of Traffic Accidents.
- (20) State Board of Health Liaison Committee to Deal with Social Security Act.
- (21) Sub-Committee to Study Maternal Morbidity and Mortality Rates for Indiana.
- (22) Liaison Committee with Indiana Crippled Children's Bureau.
- (23) Auditing.
- (24) Control of Cancer.
- (25) Syphilis Control.
- (26) Occupational Diseases.
- (27) Study of Cultists and Irregular Practitioners.
- (28) Indiana Inter-Professional Health Council.
- (29) Anti-Tuberculosis.
- (30) Conservation of Vision.
- (31) Pneumonia.
- (32) Liaison Committee with Indiana State Department of Public Welfare.
- (33) Director of Research on Sickness Insurance.

9. Reading of communications.
10. Reading of memorials and resolutions.
11. Unfinished business.
12. New business.
13. Adjournment.

The election of officers will be the first order of business at the second meeting of the House of Delegates. In addition to the regular officers, the terms of the following officers expire December 31, 1939, and their successors must be elected at the session: Delegates to the American Medical Association to succeed Don F. Cameron, Fort Wayne, and F. S. Crockett, Lafayette, and alternates, Norman M. Beatty, Indianapolis, and A. M. Mitchell, Terre Haute.

Delegates from the second, fifth, eighth, and eleventh districts are reminded that the terms of their councilors will expire December 31, 1939, and the new councilors should be elected to succeed the following:

- Second District: H. C. Wadsworth, Washington.  
 Fifth District: O. O. Alexander, Terre Haute.  
 Eighth District: M. A. Austin, Anderson.  
 Eleventh District: Ira Perry, North Manchester.

Some of these elections already may have been held but they should be reported to the House of Delegates at this session for confirmation.

THOMAS A. HENDRICKS,  
*Executive Secretary.*



## REPORTS OF OFFICERS AND COMMITTEES

### COMMITTEE ON CREDENTIALS

*House of Delegates,*

*Indiana State Medical Association*

Gentlemen:

In accordance with the Constitution and By-Laws of the Indiana State Medical Association, each county medical society must certify its delegates and alternates previous to the annual session of the State Association. A postal card notification signed by the secretary of the local county medical society and sent to the headquarters office is sufficient certification. If you have not yet taken this action in your society, we urge that this be done immediately and that the headquarters office or this committee be notified.

Respectfully submitted,

W. F. CARVER, M.D., *Chairman,*

J. W. BOWERS, M.D.,

W. E. AMY, M.D.

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### EXECUTIVE SECRETARY

*House of Delegates,*

*Indiana State Medical Association.*

Gentlemen:

#### **Largest Journal—Most Reports**

Seemingly with ever increasing momentum the year rolls around and the time comes once again for a summary of the activities of the Indiana State Medical Association. In order that the average busy physician may become familiar not only with the activities but also with the many problems and questions facing the profession at the present time, the by-laws of the Indiana State Medical Association provide that each committee make an annual report to the House of Delegates, and tradition demands that these reports be published in THE JOURNAL at least a month preceding the annual session. Hence, as the time approaches for this year's annual session at Fort Wayne, October 10, 11 and 12—the ninetieth annual session of the Indiana State Medical Association—the average busy doctor is confronted with the job of reading the largest number of THE JOURNAL ever issued and the longest list of reports ever assembled for the consideration of the membership by the officers and committees of the Indiana State Medical Association. Although we realize that it is quite a task merely to read, let alone analyze and fully comprehend each and every report, we hope each member will find time this year to familiarize himself with the high points of these summaries, as they not only serve as a background for an approach to the problems faced by the profession but in many cases contain definite recommendations and definite methods of procedure in approaching and solving these problems. The committees have given both facts and conclusions, in some cases the reports being

encyclopedic in detail. However, in each case they are interesting and are characterized by an air of unflagging vitality that permeates the entire organization. Up until a few years ago these reports appeared in THE JOURNAL in small type, but for the last several years they have been printed in regular type as more and more the importance of having each physician informed, no matter how much he may feel himself personally and professionally removed from the general trend of events, has become apparent, and every attempt has been made to make the reading of the reports as painless as possible.

By reading these reports you can get a clearer understanding of the past and a sensitiveness to the problems of the present. You can get a swift summary of the events of the past year, and a comprehensive analysis of the economic problems and interests of Indiana medicine. These reports are not alone a survey of an effort, they are part of an effort and attempt to provide the profession, sometimes confused, alarmed, harried and hurried, with a chart of the past year upon which to base its course this coming year. These reports represent the attempts of the committees to justify in some measure the faith placed in them by the profession.

#### **American Medicine in Mid-Passage**

Each year during the last decade has been designated in its turn as critical, crucial and all-important to the medical profession by the officers and various committee chairmen in their reports, and this coming year promises to be no exception. Indeed the course taken during the next twelve months may well stamp the future history of medicine for the next generation, and the realization of this fact should give every physician a lively interest in the present and an intelligent concern for the future. If an inlander may use a term of the high seas, American medicine may be said to be in mid-passage. There is no turning back now, and the course charted within the next few months may well determine the ultimate destination of the profession.

Respectfully submitted,

THOMAS A. HENDRICKS,

*Executive Secretary.*

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### TREASURER

*House of Delegates,*

*Indiana State Medical Association.*

Gentlemen:

Attached to this report is the summation of our various holdings, itemized by the George S. Olive and Company, certified public accountants, of Indianapolis, Indiana. The report is quite comprehensive and, I believe, self-explanatory. There have been no additional purchases of bonds during the past year, but with the incoming year a few

of our holdings will have to be reinvested due to the maturing of some of our bonds.

Again your attention is called to the fact that we have been most fortunate in not having incurred any expense from defense of malpractice suits. You may recall that one year ago we had paid out a very small sum. This year no money has been paid for such purpose. There are, however, some attorneys' fees unpaid because they have not yet been approved.

Respectfully submitted,  
A. F. WEYERBACHER, M.D.,  
Treasurer.

TREASURER'S REPORT

January 16, 1939.

The Council,  
Indiana State Medical Association,  
Indianapolis, Ind.  
Gentlemen:

We have examined the cash records of your Association for the year ended December 31, 1938. This examination was undertaken for the purpose of determining and verifying the cash transactions for the year, and of verifying the assets at the close of the year, as reflected by the records.

The results of our examination are presented in this report, which includes: (1) text of comments; (2) statement of assets of all funds for the year ended December 31, 1938; (3) statement of receipts and disbursements of all funds for the year ended December 31, 1938. A list of the statements is presented on the page following this text.

General Comments

In Exhibit A is presented an analysis of the increase in assets of the Association for the year ended December 31, 1938, showing in summary form the sources from which this increase was derived.

Details of the assets of all funds are presented in Exhibit B. We examined securities of the Association and confirmed bank balances with the depositories.

Details of the receipts and disbursements of cash in the general fund, of THE JOURNAL of the Indiana State Medical Association, and of the medical defense fund are presented in Exhibits C, D, and E.

Yours very truly,  
GEORGE S. OLIVE & CO.,  
Certified Public Accountants.

Exhibit A

INDIANA STATE MEDICAL ASSOCIATION  
Analysis of Increase in Assets, All Funds.  
Year Ended December 31, 1938

TOTAL ASSETS, DEC. 31, 1938—EXHIBIT B.....\$47,780.69  
TOTAL ASSETS, DEC. 31, 1937..... 45,213.84  
NET INCREASE .....\$ 2,566.85

Arising from the following sources:

Excess of operating cash receipts over operating cash disbursements—general fund, year ended Dec. 31, 1938: Receipts—Exhibit C...\$26,359.63 Disbursements — Exhibit C ..... 26,234.42  
Excess of operating receipts .... \$ 125.21  
Excess of cash receipts over cash disbursements — medical defense fund, year ended Dec. 31, 1938, 2,076.55

Excess of cash receipts over cash disbursements—The Journal of the Indiana State Medical Association, year ended Dec. 31, 1938 ..... 525.09  
\$ 2,656.85

Less:  
Reduction of investment Rokeby Apartment Hotel bond ..... 10.00  
Reduction of investment Beachton Court Apartment bonds ... 80.00  
90.00  
Total net increase ..... \$ 2,566.85

Exhibit B  
Statement of Assets, All Funds, at December 31, 1938  
General Fund:

Cash on deposit—Exhibit C.....\$ 4,191.90  
Petty cash fund..... 200.00  
Investments:  
Fort Wayne, Indiana, school improvement bonds ..... 3,000.00  
Indianapolis, Indiana, City Hospital bonds ..... 5,000.00  
Marion County, Indiana, Flood Prevention bonds ..... 3,000.00  
United States Treasury bonds..... 10,000.00  
Beachton Court Apartments, Chicago, bonds evidenced by certificate of deposit..... 3,800.00  
Rokeby Apartment Hotel, Chicago, bond evidenced by certificate of deposit ..... 955.00  
Total general fund assets..... \$30,146.90

The Journal of the Indiana State Medical Association:

Cash on deposit—Exhibit D..... 3,097.85

Medical Defense Fund:

Cash on deposit—Exhibit E..... 4,535.94  
Investments:  
Fort Wayne, Indiana, School Improvement bonds ..... 2,000.00  
Indianapolis, Indiana, City Hospital bond ..... 1,000.00  
Marion County, Indiana, Flood Prevention bonds ..... 2,000.00  
United States Treasury Bonds..... 5,000.00  
Total medical defense fund assets.. 14,535.94

TOTAL ASSETS—ALL FUNDS—Exhibit A.....\$47,780.69

Exhibit C  
Comparative Statement of Cash Receipts and Disbursements.  
Years Ended December 31, 1938, and December 31, 1937

GENERAL FUND  
YEAR ENDED  
Dec. 31, Dec. 31, Increase  
1938 1937 —Decrease  
CASH BALANCE AT BEGINNING OF YEAR...\$ 4,066.69 \$ 5,088.79 —\$ 1,022.10  
Receipts:  
Membership dues ..... 21,253.00 20,720.00 533.00  
Income from exhibits .. 4,267.88 2,600.00 1,667.88  
Rokeby Liquidation Trust Distribution ..... 10.00 15.00 —5.00  
Beachton Court Liquidation Trust Distribution 80.00 120.00 —40.00  
Interest income:  
United States Treasury bonds ..... 286.25 286.25 .....



Indianapolis, Indiana, City Hospital bonds	200.00	223.75	-23.75
Marion County, Indiana, Flood Prevention bonds	127.50	127.50	.....
Fort Wayne, Indiana, School Improvement bonds	135.00	135.00	.....
Lake County, Indiana, State Highway Aid bonds	.....	49.00	-49.00
Proceeds from maturity of Lake County, Indiana, State Highway Aid bonds....	.....	2,000.00	-2,000.00
Total receipts	\$26,359.63	\$26,276.50	\$ 83.13
BEGINNING BALANCE			
PLUS CASH RECEIPTS	\$30,426.32	\$31,365.29	-\$ 938.97

**Disbursements:**

Transfers of applicable portion of dues to:			
The Journal of the Indiana State Medical Association — Exhibit D	\$ 6,148.00	\$ 5,970.00	178.00
Medical defense fund Exhibit E	2,265.75	2,212.50	53.25
Headquarters office expense	10,333.71	9,285.76	1,047.95
Publicity Committee	1,154.65	433.09	721.56
Public policy	165.71	943.62	-777.91
Council	528.59	166.57	362.02
Officers	774.18	268.50	505.68
Annual session	3,431.84	2,169.84	1,262.00
Miscellaneous committees	794.00	433.16	360.84
Postgraduate study	579.96	217.09	362.87
Federal O.A.B. tax	58.03	51.95	6.08
Premium and accrued interest on purchase of United States Treasury bonds	.....	146.52	-146.52
Disbursement for United States Treasury bonds	.....	5,000.00	-5,000.00
Total disbursements	\$26,234.42	\$27,298.60	-\$ 1,064.18

**CASH BALANCE AT END**

OF YEAR	\$ 4,191.90	\$ 4,066.69	\$ 125.21
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**Exhibit D****Statement of Cash Receipts and Disbursements,  
Year Ended December 31, 1938****THE JOURNAL OF THE INDIANA STATE MEDICAL  
ASSOCIATION**

BALANCE, JANUARY 1, 1938	\$ 2,572.76
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**Receipts:**

Subscriptions—members—Exhibit C	\$ 6,148.00
Subscriptions—non-members	138.75
Advertising	11,024.87
Collections on accounts receivable	323.41
Single copy sales	16.05
Electrotypes	104.89
Miscellaneous	3.00
Total receipts	17,758.97
	\$20,331.73

**Disbursements:**

Editorial and management salaries	\$ 7,622.55
Printing	6,857.48
Postage	656.90
Electrotypes	639.81
Office rent and light	738.76

Office supplies	71.69
Press clippings	103.33
Federal O.A.B. tax	51.65
Extras—help and printing	270.01
Advertising commissions	221.70
Total disbursements	17,233.88
BALANCE, DECEMBER 31, 1938—Exhibit B	\$ 3,097.85

**Exhibit E****MEDICAL DEFENSE FUND****Statement of Cash Receipts and Disbursements  
Year Ended December 31, 1938**

BALANCE, JANUARY 1, 1938	\$ 2,529.39
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**Receipts:**

Transfer of applicable portion of dues from the general fund—Exhibit C	\$ 2,265.75
Interest income:	
United States Treasury bonds	155.00
Indianapolis, Indiana, City Hospital bonds	47.50
Marion County, Indiana, Flood Prevention bonds	85.00
Fort Wayne, Indiana, School Improvement bonds	90.00
Total receipts	2,643.25
	5,172.64

**Disbursements:**

Attorney's retainer fee	\$ 600.00
Malpractice fee	15.00
Treasurer's bond	15.00
Interest collection charge	.45
Reprinting by-laws	6.25
Total disbursements	636.70

BALANCE, DECEMBER 31, 1938—Exhibit B	\$ 4,535.94
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**THE CHAIRMAN OF THE COUNCIL***House of Delegates.**Indiana State Medical Association***Gentlemen:**

Proceedings of the regular meetings of the Council of the Indiana State Medical Association which were held during the past year were published in the November 1938 and the March 1939 issues of THE JOURNAL. Your chairman therefore gives only a brief summary of the actions which were taken by the Council during the last year in submitting the report of the Council to the House of Delegates.

**FIRST MEETING, INDIANAPOLIS, OCTOBER 4, 1938**

The Council convened at the Indianapolis Athletic Club at 1:00 p. m., with the chairman, Dr. M. A. Austin, of Anderson, presiding. The roll call showed the thirteen councilors, the president, the president-elect, the treasurer, editor of THE JOURNAL, chairman of the legislative committee, and the executive secretary present. Special luncheon guests who made short talks before the Council went into executive session included the secretary of the State Board of Health, the director of the Bureau of Maternal and Child Health, and the director of Services for Crippled Children of the State Department of Public Welfare.

#### Councilor District Reports

Councilor district reports were accepted as printed in the September 1938 issue of *THE JOURNAL*.

#### Postgraduate Assembly Expenses

Due to the fact that the Budget Committee had allowed only \$300 to the Graduate Education Committee, a deficit was incurred in putting on the spring postgraduate course. The Council appropriated sufficient funds to take care of this deficit.

#### Journal Elections

Dr. E. M. Shanklin was unanimously re-elected editor of *THE JOURNAL* for 1939, and Dr. Lyman T. Rawles of Fort Wayne, and Dr. Edgar F. Kiser of Indianapolis were elected to the editorial board.

#### County Society Membership

The Council went on record that physicians residing in a county where the county medical society had ceased to function actively should be allowed to hold their membership in the adjoining county society most convenient for them to attend. This action was taken in accordance with the by-laws of the state association.

#### A. M. A. Survey of Medical Care for All the People

Survey explained to and discussed by members of the Council.

#### Recommendations of Dr. Baker

Dr. Baker recommended that Miss Hope Toman be given the title of assistant editor of *THE JOURNAL* and that Miss Lucille Kribs be given the title of assistant secretary of the state medical association. The Council accepted these suggestions by consent.

#### Increase in Dues

It was the consensus of the Council that dues should be increased from \$7.00 to \$12.00 per year annual membership fee. For further information see minutes of second meeting of the Council.

#### SECOND MEETING. INDIANAPOLIS, OCTOBER 6, 1938

The second meeting of the Council convened directly following the meeting of the House of Delegates, with Dr. M. A. Austin, chairman, presiding, in the Green Room of the Indianapolis Athletic Club. Roll call showed eleven councilors, the president, president-elect 1939, editor of *THE JOURNAL*, the treasurer, and the executive secretary present.

#### Increase in State Membership Dues

Resolution passed by the House of Delegates which had just adjourned instructed the councilors to take up the matter of an increase in state membership dues in their districts along with the reasons for such increase. The chairman of the Council was instructed to prepare and send to all members of the Council a brief giving the reasons for the contemplated increase in dues.

#### MIDWINTER MEETING. INDIANAPOLIS, JANUARY 29, 1939

With all thirteen councilors, the president for 1938, the president for 1939, and the president-elect, the treasurer, editor of *THE JOURNAL*, and the executive secretary of the Indiana State Medical Association present, the Council convened at the

Indianapolis Athletic Club, with Dr. M. A. Austin, chairman, presiding.

#### Reports of Councilors

Reports of councilors by districts showed that medical organization in each district was in good condition. Among the subjects discussed in these reports were (1) Farm Security program; (2) advisability of full-time lay secretaries for county and district medical societies; (3) formation of joint medical societies; (4) increase in dues; (5) district health officers; (6) governmental interference; (7) sulfapyridine, and (8) the "Indiana Plan" carried on in Delaware-Blackford County Medical Society.

#### Retiring Councilors

A vote of thanks was given to Dr. Forster and Dr. Christophel, retiring councilors of the Tenth and Thirteenth districts respectively.

#### Reports of Officers

Dr. Herman Baker, retiring president, spoke of the necessity of raising state association dues in order to set into motion a complete program of graduate education in the state. Dr. Baker also spoke of voluntary health insurance plans in order to take care of the medical needs of the low income group, and of the importance of the permanent committee on the study of health insurance of which Dr. Forster, retiring councilor of the Tenth district, is chairman.

Dr. E. M. VanBuskirk, president, spoke of the changing conditions in medical practice and of the fact that the medical profession throughout the country must assume responsibility more and more and hence a liaison committee with the Indiana State Department of Public Welfare is to be appointed to keep in constant touch with the welfare officials as the situation demands. He also spoke of hospital insurance and pre-payment plans.

Dr. A. F. Weyerbacher, treasurer, gave the financial report of the association, showing that the association had operated with a net increase of \$2,566.85 above the balance at the end of the previous year.

Dr. E. M. Shanklin, editor of *THE JOURNAL*, reported at length concerning *THE JOURNAL*, stating that the average number of pages per issue had been raised from 82 in 1933 to 102 pages per issue in 1938. He spoke of the "Topic of the Month" in conjunction with the "Indiana Plan" as a feature which had caused a great deal of comment throughout the country.

#### Medical Care for All the People Survey

Report showed that the survey had been undertaken by 30 county medical societies.

#### Plans for 1939 Annual Session

Preliminary report, along with proposals and suggestions for the 1939 annual session to be held at Fort Wayne October 10, 11 and 12, presented to the Council. The Council authorized the rental of the Shrine Theater for the session and voted to continue the scientific exhibit and the employment of professional stenographers.



**Membership Report**

The membership report showed that out of a total of 4,149 physicians in the state, 3,083 were members of the association in good standing in 1938 as against 2,979 in 1937.

**Reports of Committee Chairmen**

The various committee chairmen made brief reports at the luncheon. In addition to the officers and the committee chairmen who reported was a report by Dr. R. L. Sensenich, a member of the Board of Trustees of the American Medical Association.

**Director of Research on Sickness Insurance**

Dr. W. U. Kennedy of Newcastle, who is serving as a member of the permanent study committee on health insurance and national medical situation, was given a separate title by the Council of Director of Research on Sickness Insurance.

**"Indiana Plan"**

The Council authorized the expenditure of \$500 by the Bureau of Publicity to carry out the work and administrations of the "Indiana Plan" during the year.

**Journal Business**

The Council renewed the contract with Dr. E. M. Shanklin, editor of *THE JOURNAL*, for 1939.

**Elections for 1939**

Dr. C. A. Nafe and Dr. C. H. McCaskey were re-elected members of the Executive Committee for 1939, and Dr. M. A. Austin was re-elected chairman of the Council for 1939.

Respectfully submitted,

M. A. AUSTIN, M.D., *Chairman*

**FIRST COUNCILOR DISTRICT**

The First District Medical Society, upon the invitation of the Gibson County Medical Society, held its annual meeting at the Country Club in Princeton, Indiana, on June 8, 1939. The following officers were elected:

President, Lee Springstun, Chrisney

Vice-president, O. M. Graves, Princeton

Secretary-treasurer, Stephen Johnson, Evansville.

On August 8, 1939, the first of a series of meetings for postgraduate education was held at St. Mary's Hospital in Evansville under the sponsorship of the Vanderburgh County Medical Society and the Indiana State Medical Association. Full details of this program were given in the July issue of *THE JOURNAL*.

I. C. BARCLAY, M.D., *Councilor*

**SECOND COUNCILOR DISTRICT**

The county societies composing the second district enjoyed what I consider a successful year. The societies are active and interested.

The new problems confronting the medical organization and the individual doctor received constant consideration and discussion during the past year.

Many new economic medical propositions have been presented to the individual society during the last year. Some of these have been successfully coped with. Attempts at other problems have been

a disappointment. Constant alertness and persistent study is demanded.

The annual district meeting was held in Bloomington on May 24, 1939. The scientific program was presented during the afternoon at the medical building of Indiana University. Attendance was good. The dinner and the evening entertainment was held at the Bloomington Country Club. State officials were present at the dinner. They seemed to enjoy both the dinner and the entertainment following. The business meeting was held in the afternoon. Doctor James B. Maple of Sullivan was elected president of the district for next year; Doctor J. S. Brown of Carlisle was continued as secretary. Doctor H. C. Wadsworth of Washington was elected councilor for the next term.

The district meeting will be held next year at Sullivan, Indiana, at the pleasure of the Sullivan County Medical Society.

H. C. WADSWORTH, M.D., *Councilor*.

**THIRD COUNCILOR DISTRICT**

The Third District Medical Society had a fall meeting at Scottsburg, Indiana, and it was well attended. Another meeting was held at Huntingburg this spring with a fairly good attendance.

There has been nothing of special interest to the state association in activities in our district. Some county organizations in this district are functioning very well and others are somewhat sluggish.

At the present time a plan is under way to organize a free venereal clinic at New Albany under the management of the State Board of Health, which is to be conducted by the Floyd County Medical Society.

WILLIAM H. GARNER, M.D., *Councilor*.

**FOURTH COUNCILOR DISTRICT**

The Fourth Councilor District Medical Society met at Columbus, Indiana, on May 25, 1939, with a very satisfactory meeting, well attended. Drs. C. O. McCormick and J. O. Ritchey of Indianapolis, and Dr. A. R. Barnes of Rochester, Minnesota, led the discussions.

M. C. MCKAIN, M.D., *Councilor*

**FIFTH COUNCILOR DISTRICT**

(No report submitted)

**SIXTH COUNCILOR DISTRICT**

Every county in the Sixth District has an active county society. All are doing good work and functioning smoothly.

During the month of May, I secured from the Indiana State Board of Health a supply of pneumonia serum for the use of indigents in the sixth district, and it is now located at the Henry County Hospital in Newcastle, where any physician in the district may obtain a supply in a few hours.

The annual meeting was held at Connersville on Wednesday, June 7. An interesting program was presented.

The next meeting of the society will be held in Brookville, May 15, 1940.

SAMUEL KENNEDY, M.D., *Councilor*

## SEVENTH COUNCILOR DISTRICT

The Seventh District has had another successful year, with meetings held in the component societies according to regular schedules.

The next meeting will be held in Martinsville in November, 1939. The program has not been arranged.

C. J. CLARK, M.D., *Councilor*

## EIGHTH COUNCILOR DISTRICT

The profession in the Eighth District apparently are adjusting themselves to the New Deal, Township Clinics, Red Cross and Public Health Nurses, free consultants for mental defectives and maladjusted individuals, Crippled Children and other rehabilitation programs. The only thing lacking at the present time is a bonus for larger families but this is satisfactorily taken care of in many instances by having the father declared unemployable and thereby all his offspring are given the benefits of a dependent mother's pension. Free food and clothing from the surplus commodities commission and an old age pension makes some of us think we were born a generation too soon. And with 13 weeks unemployment insurance to finance a three months' vacation, how come a lot of us are paying office rent and working sixteen to twenty hours a day without over time and lots of time "fer nuttin'"? Just because we love the game and, win or lose, wouldn't change it.

Particularly must be mentioned the activities of the Muncie men and the work of the Delaware-Blackford county society which has attained national commendation. An unusual meeting was sponsored by the Madison county members at the last district meeting which was held at the Remy-General Motors plant in Anderson. Many men saw for the first time the inside of a modern industrial plant. Air purification, lung contaminations and skin conditions arising from various processes in employment were discussed.

Dinner was given at the Municipal Golf Club and more information and entertainment was given by Dr. Foster Hudson and Dr. Edgar F. Kiser, both of Indianapolis. (Due to extreme modesty, no local men appeared on the program.)

M. A. AUSTIN, M.D., *Councilor*

## NINTH COUNCILOR DISTRICT

Everything is moving along in customary ship-shape form.

Our annual meeting was held at Lebanon, May 11th, the district physicians being the guests of the Boone county society. A pleasant and instructive day was enjoyed by all, due to the untiring efforts of president Williams, vice-president Coons, secretary Kern, and the several committees they had in charge of the activities.

The 1940 district meeting will be held at Attica, May 15th.

The 1940 officers are: president, Dr. J. R. Burlington; vice-president, A. R. Ratcliff; secretary,

Lee J. Maris. The Fountain-Warren County Medical Society will be host.

FLOYD T. ROMBERGER, M.D., *Councilor*.

## TENTH COUNCILOR DISTRICT

It has been a busy year for the Tenth District Medical Society. The spring meeting was sponsored by the doctors of Whiting and was most interesting and well attended. The second meeting of the year will be held in September at George Ade's estate, near Brook, with the members of the Jasper-Newton Medical Society as hosts.

The Lake County Medical Society has been completely reorganized and a full-time lay executive secretary, Mr. Waterson, has been doing a splendid job. All medical societies in the district report regular meetings with good attendance.

JAMES M. WHITE, M.D., *Councilor*.

## ELEVENTH COUNCILOR DISTRICT

The present membership of the Eleventh District is 208. Of these, 6 are honorary members. All bills are paid and the society is \$425 to the good.

Each of the seven county societies are functioning in splendid shape, and active meetings are held regularly and are well attended.

One of the best meetings ever held in our district was the Peru meeting, last May tenth. There were 95 physicians in attendance. The forenoon clinic was exceptionally good and the best attended clinic ever held in the Eleventh District. The afternoon program was above the average. There were few who did not stay through the entire afternoon meeting.

During the business session, it was decided to hold our next meeting in Marion. The date has been set for October 18, 1939. Election of officers resulted as follows:

President, Eva Kennedy, M.D., Camden

Secretary-treasurer, O. G. Brubaker, M.D., North Manchester

The speakers for the Marion meeting will be Arthur E. Hertzler, M.D., author of "The Horse and Buggy Doctor," C. J. Clark, M.D., Indianapolis, Charles Wise, M.D., Camden, and Carl P. Huber, M.D., Indianapolis. With this kind of a program, and with a goodly number of enthusiastic younger men plus the faithful "oldsters," there is good reason to hold high our banner, "Best in the State."

IRA E. PERRY, M.D., *Councilor*

## TWELFTH COUNCILOR DISTRICT

The Twelfth District has had a very satisfactory year.

In spite of the many added and time-consuming problems coming before the individual county societies today, the scientific programs have been well above the average. This is a happy situation for it proves to the outsider that scientific progress is first in the doctor's mind even in strenuous times.

There is apparent, too, an increased individual interest in the problems facing the profession. This makes for better cooperation and willingness to



take an active part in the work of the county society as well as of the district society.

Our 1939 annual meeting was one of the best and most enthusiastic in the history of the District.  
A. JEROME SPARKS, M.D., *Councilor*

THIRTEENTH COUNCILOR DISTRICT

The affairs of the Thirteenth District are in a satisfactory state. The annual meeting was held in Plymouth last November and was attended by eighty-nine members. The meeting this year will be in LaPorte on Wednesday, November eighth. An outstanding program is being arranged. We invite you to come.

Last December the Starke County Medical Society voted to cooperate with the Farm Security Administration in the care of their clients. They are operating on the individual plan and their secretary reports that the arrangement has been quite satisfactory. Marshall County was invited this spring by the Farm Security Administration officials to consider cooperation in such a plan in that county. So far, however, the membership has not agreed to enter into such a program.

Beginning July first, St. Joseph County engaged Mr. Paul Waddell as executive secretary. The success of this venture is being watched with considerable optimism and interest.

The district misses the efficient services of Dr. W. B. Christophel, as councilor, which position he occupied for six years.

ALFRED ELLISON, M.D., *Councilor*.

EXECUTIVE COMMITTEE

House of Delegates,  
Indiana State Medical Association

Gentlemen:

I. INTRODUCTION

Despite jolts, such as the action of the Attorney General against the American Medical Association, the frequent criticisms of the medical profession during the hearings on the Wagner bill, and the constant flood of articles appearing in nationally known magazines suggesting vital changes in medical practice, your Executive Committee reports with confidence that never before has the medical profession of Indiana enjoyed a better public relationship or has rendered better service to the public than at the present time. This fortunate position your committee attributes to the liberal and progressive policies of the profession in facing the difficult problem of rendering medical care to all the people and to the wholehearted effort of its 83 component medical societies who have not hesitated to assume leadership and take responsibility in their own local communities wherever and whenever necessity and emergency has demanded. With this firm background upon which to build, your committee looks forward to the next twelve months, even with all the uncertainties in regard to peace

and war, with a feeling that whatever may come the Indiana profession will meet its obligations to the public and will be able to overcome any efforts on the part of its enemies to destroy it.

With events moving so fast, the ability, energy, and ingenuity of the Executive Committee has been taxed to the utmost in meeting and attempting to work out the best solutions to the complex problems with which the committee, acting upon behalf of the profession, has been faced. The difficulties inherent in the many questions coming up for consideration can only be appreciated by a study of the minutes of the committee meetings as printed from month to month in THE JOURNAL, even though those written reports record only half the story. Although the committee, in this outline, is able to touch only the high points of the problems with which it has been faced during the past year, we do hope that every member of the Indiana State Medical Association will at least take enough time to glance at this report in order that he may have a general appreciation of the Indiana medical economic picture at the present time.

In order to keep in as complete touch as possible with the developments, representatives of the Executive Committee attended the National Health Conference at Washington last year, the Michigan State Health Conference at Lansing following the National Health Conference at Washington, the Southwestern Medical Association meeting at Oklahoma City, the Northwest Regional Conference at Chicago, and the American Medical Association meeting at St. Louis.

II. ADMINISTRATIVE

The administrative duties of the committee come under two general heads: (1) Organization matters, and (2) Economic, social and legislative problems.

Organization Matters

(A) MEMBERSHIP

1. *Membership records.* It is with great pleasure that the Executive Committee reports that for the seventh successive year an increase in members of the state association has occurred and at the present time the membership roll of the association is the largest in the history of the organization. Figures from 1929 to 1939 follow:

Year	Number of Physicians in Indiana	Regular Members	Honorary Members	Total Members
1929.....	4,102.....	2,734.....	.....	2,734
1930.....	4,102.....	2,739.....	.....	2,739
1931.....	4,073.....	2,767.....	.....	2,767
1932.....	4,073.....	2,725.....	.....	2,725
1933.....	4,073.....	2,710.....	.....	2,710
1934.....	4,049.....	2,741.....	.....	2,741
1935.....	4,049.....	2,777.....	30.....	2,807
1936.....	4,025.....	2,803.....	29.....	2,832
1937.....	4,025.....	2,942.....	40.....	2,982
1938.....	4,081.....	2,970.....	62.....	3,032
1939.....	4,081.....	2,982.....	95.....	3,077

2. *Honorary members.* The committee urges each county medical society to check its records in order that all physicians who are eligible to be

honorary members may be included in this classification. Article IV, Section 5, of the Constitution reads as follows regarding honorary membership:

"Honorary members shall consist of representative teachers and students of science allied to medicine and of physicians and surgeons of distinction not members of the Indiana State Medical Association, who may by vote of the House of Delegates be elected to honorary membership; and any physician of the State of Indiana who has attained the age of seventy-five years and has held membership in the Indiana State Medical Association for twenty years or more may be elected to honorary membership by vote of the House of Delegates, provided his name be proposed for such honorary membership by the county medical society of which such physician is a member."

The Executive Committee has ruled that if the honorary members desire *THE JOURNAL* the subscription price should be paid by the local county medical society.

3. *Necessity of reporting honorary members.* Several societies have not sent in the names of men who are eligible to honorary membership and as a result on at least one occasion the physicians who should have been listed as honorary members have asked that their state dues be refunded for past years although their names had not been certified to headquarters office in accordance with regulations. The Executive Committee feels it has no authority to refund such dues, hence it hopes that the officers of each county medical society will be sure that the names of all members entitled to honorary membership are certified to headquarters office during the year when such certifications are due.

4. *Question of membership of physicians who are not licensed to practice in Indiana.* Comment has been received from the American Medical Association in numerous communications from A. W. Stack of the Membership Department and Dr. Olin West, secretary and general manager, in regard to the situation which has developed in Indiana whereby physicians who are not licensed to practice in Indiana are voted in as members of a local county medical society and hence are automatically members of the Indiana State Medical Association and the American Medical Association. In checking on these cases the Executive Committee has found that for the most part this is true because county societies have taken into regular membership men who are practicing in various communities on temporary permits and have not as yet received their permanent credentials. There is no uniformity concerning this practice throughout the state and your Executive Committee feels that each society should understand this matter thoroughly and then decide just what procedure it wishes to follow in the future. The committee hopes that some discussion concerning this part of its report will be made either on the floor by the House of Delegates or when the report is considered in reference committee. The correspondence concerning this will be

turned over to the chairman of the reference committee for consideration.

5. *Nominations for affiliate fellowship in the American Medical Association.* Each year the House of Delegates of the American Medical Association votes a number of men into affiliate fellowship in the American Medical Association. This designation is allowed by the American Medical Association according to the By-Laws of that Association to "those physicians who have been Fellows continuously over a period of 15 years, who have passed the age of 65, and have been honorary members of the constituent state medical association to which they belong." Such affiliate fellowship nominations must be made by the constituent state medical association.

Two requests were made just before the American Medical Association meeting this year from Indiana doctors who had the above qualifications for affiliate fellowship in the American Medical Association. As there was no regular meeting of the House of Delegates or the Council, the Executive Committee took upon itself the authority for nominating the two physicians mentioned by the American Medical Association for affiliate fellowship in the American Medical Association.

6. *Question of raising dues.* In his presidential address last year Dr. Herman Baker recommended that the Indiana State Medical Association dues be raised to take care of extensive postgraduate education work. This matter was discussed by the House of Delegates and by the Council of the state association at the annual session at Indianapolis and at the midwinter meeting of the Council. Shortly after Dr. Baker made this recommendation, numerous letters were received from various county medical societies requesting information as to why dues should be raised. The committee felt that the letter written by Dr. M. A. Austin, chairman of the Council, to each member of the Council, answered these questions. Dr. Austin's letter follows:

"October 18, 1938

"The recommendations of the House of Delegates at the recent Indianapolis session are that you contact each county medical society in your district and inform the members concerning the problems of economics and finance dealt with by Doctor Herman M. Baker in his presidential address, as discussed in our deliberations.

"For your information the employment of two additional stenographers at headquarters, one for *THE JOURNAL* and one for secretarial assistance as recommended by Doctor Baker, will add approximately \$2,000 to our expenses. The employment of a full-time physician for liaison and postgraduate hospital work, locally developed, will cost at least \$7,000 annually including traveling expenses. A \$5.00 addition to the present dues would mean the equivalent of only \$1.00 a month, or a total annual amount that is less than the weekly assessment of many labor unions.

"The reserve of \$45,000 which we possess should not be used, save in an emergency. One state medical association had to spend \$25,000 on one educational campaign to insure the public from the lowering of all medical standards and to protect the profession from the competition



that would result from a wide-open field for all irregulars. More important than all this, however, is the necessity for securing definite cooperation of every member in every county, in carrying out a program that will mean better medical services in every community and will educate the laity in regard to the dangers of discontinuing the present physician-patient relationship. The public needs to be taught the certainty of deterioration of service under any form of state medicine, and the people must be assured of the continuation of our services in any manner needed in spite of economic conditions. We must bear in mind always that it has been the increase in so-called mechanized medical procedures and hospitalization that has broken down the morale of our patients and made sickness in far too many cases catastrophic in character."

At its last meeting the House of Delegates discussed this subject and recommended that the members feel out the sentiment in their own localities and bring the matter up for further discussion at the 1939 session of the House of Delegates. The Committee hopes that the delegates will give this subject most thorough consideration before recommending any increase in the dues at this time. Notice received at the headquarters office is to the effect that the Washington County Medical Society voted against raising dues, and the Sullivan and Clay County Societies voted in favor of raising dues.

#### (B) EMPLOYMENT OF FULL-TIME SECRETARIES BY COUNTY SOCIETIES.

The Executive Committee is particularly pleased to report the employment of full-time executive secretaries of local county medical societies in two counties, Lake county and St. Joseph county, and the employment of a part-time secretary of the Vanderburgh County Medical Society, whose duties will start this fall.

To Mr. Rollen Waterson, executive secretary of the Lake County Medical Society, and to Mr. Paul Waddell, executive secretary of the St. Joseph County Medical Society, the committee offers congratulations and best wishes for success in their new undertaking.

The committee is hopeful that other of the larger societies may be able to set up full-time executive offices and that some district society may attempt an experiment with a full-time district society secretary. So far as we know, no such effort has ever been made and Indiana might well be a good proving ground for such a trial.

#### (C) POSTGRADUATE EFFORTS.

In his annual address from the chair last year President Herman M. Baker recommended the establishment of an extensive system of postgraduate medical education whereby "each county hospital would be a postgraduate center." Your officers have discussed the subject of postgraduate education with the chairman and the members of the postgraduate committee on several occasions and particularly call your attention to the report of the Committee on Medical Education and Hospitals which combines the duties carried on by two com-

mittees last year, those of the Committee on Medical Education and Hospitals and the Committee on Graduate Education.

This year the state association did not join financially with the university in putting on the local spring postgraduate program. This was entirely in the hands of the university.

#### (D) THE "INDIANA PLAN."

The Executive Committee here wishes to commend the Delaware-Blackford County Medical Society for formulating a program whereby the principles of the "Indiana Plan" were applied to its own county medical society. The details of this plan have been published in THE JOURNAL and are carried in the report of the Bureau of Publicity but the Executive Committee is pleased to report that when the Delaware-Blackford County group presented the plan to the committee for approval, the committee gave them the "go" sign.

#### (E) HALL OF HEALTH.

The committee particularly wishes to call the attention of each doctor who attends the annual session to the "Hall of Health" to be conducted in the Allen County court house at the state meeting under the direction of the Fort Wayne Medical Society in conjunction with the Indiana State Medical Association. This new feature of the annual session is directed particularly to the education of the general public and the Executive Committee was glad to authorize the Fort Wayne Medical Society to use the name of the State Association in conjunction with the name of the society as endorsing this project.

### ECONOMIC, SOCIAL AND LEGISLATIVE PROBLEMS

#### (A) RIGHT OF INDIVIDUAL PATIENT TO CHOOSE HIS OWN PHYSICIAN.

It is becoming increasingly evident that a crisis is impending in regard to the age-old concept of medicine that the individual patient has an inalienable right to choose his own physician. The members of the committee have been aware that in certain instances this precept has been evaded in compensation cases and that now Michael Davis, head of the so-called "Committee on Research in Medical Economics," sponsored by the Rosenwald Fund, has issued a statement that a survey he has made shows that in reality very few patients choose their own physicians. Your committee is aware that this patient-physician precept may be one of the few things which stands between American medicine and socialization. Hence, your committee has in every way possible adhered to the policy that the patient should have at all times the right to choose his own physician. As a result, the committee has held to this idea when the following problems were brought to its attention:

1. *Examination of beauty culturists.* Many complaints have been received at the headquarters office in regard to the present method whereby beauty culturists are not allowed to choose their own physicians to make their annual examinations

which are required by law. The last session of the legislature passed a bill whereby the beauty culturists could go to the physician of their choice. This bill, however, was not signed by the Governor and as a result the beauty culturists are forced to go to doctors specified by the Indiana Board of Beauty Culturist Examiners. The committee makes note of this not because of the importance of this particular instance as such but because it involves a principle which is repugnant to what your officers believe to be good medical practice, that is, the right of a person to choose his own physician and not have such physician named by any board or commission of the state or federal government.

2. *List of physicians to take care of WPA cases.* Several months ago a request was received from the WPA office that local county medical societies supply lists of physicians who would be willing to take care of WPA cases rather than having the WPA cases referred to physicians selected by these officials. The Executive Committee felt that such a request, irrespective of the motives that might or might not be behind it, should be considered as a move in the right direction and hence it sent the following letter to each county medical society, as the committee felt that it should lend all the force possible to the maintenance of the patient-physician relationship which the Committee believes is basically sound and correct:

"The following letter, which is self-explanatory, has been received from M. R. Ray, State Compensation Officer of the Works Progress Administration of Indiana, 1200-1202 Kentucky Avenue, Indianapolis:

"Our Washington office recently requested that we submit to them a list of all doctors who had handled one or more Works Progress Administration cases, giving the number of cases handled and the total amount of the medical bills presented since the inception of this program. After they had received this list of physicians, it was noted that in some communities several physicians had received a great majority of the cases and we have been asked to explain why a better distribution of the medical cases was not made in this State.

"In view of the fact that we have received very few complaints from your Association, it would be deeply appreciated if you could address a letter to Mr. Jennings, setting forth your Association's experience with the Works Progress Administration Compensation Division with respect to the distribution of medical cases.

"We are explaining to the Washington office that the reason that some of the physicians have received more than their proportionate share of the injury cases is because the injured men had requested medical attention from these particular doctors.

"It would be deeply appreciated if you could obtain for us from each local medical society a list of physicians who are qualified and willing to handle Works Progress Administration injury cases in order that the names of these doctors may be placed on each project in their community and the distribution of cases made as equitably as possible among those doctors listed. Of course, when an injured man specifically requests a particular physician, instructions will be issued that he be permitted to use the physician of his own selection.

"Just as soon as these requested lists have been received, we will maintain a card index by month and under each physician's name will be shown the number of cases and the total amount of bills for the preceding month and the Medical Association will be invited to inspect these cards each month following the thirty day period in which medical service was rendered.

"Sincerely thanking you for the splendid cooperation we have received from your Association, I remain

Respectfully yours,

M. R. Ray

State Compensation Officer."

"This letter was brought to the attention of the Executive Committee of the Indiana State Medical Association at its regular monthly meeting on May 7. The committee authorized that a copy of this letter be sent to the secretary of each county medical society with the suggestion that insofar as possible each county medical society comply with the request of the Works Progress Administration."

3. *PWA services.* From letters which have been received at the headquarters office apparently a lack of understanding exists as to the difference between WPA and PWA cases. WPA work is done under the direct control of the Government while PWA work is carried on by private companies under contract and the workers come under the same regulations as those of any other employees whose employers carry compensation. In other words, the employer rather than the employee has the right to name the physician.

4. *Farm Security Administration.* As you will recall, several years ago the Executive Committee worked out a set of principles with the Indiana officials of the Farm Security Administration for the care of Farm Security clients. These principles maintained the right of the patient to choose his own physician and also the right of the local county medical society to work out its arrangements with the Farm Security officials if it cared to do so for handling Farm Security Administration clients. The principles adopted by the Executive Committee and the local Farm Security group formed a basis for an understanding which has been carried out in many of the midwestern and northwest states. Your committee is pleased to report that these so-called "Indiana principles" received the approval of the House of Delegates of the American Medical Association at the St. Louis meeting.

In Indiana at least one county medical society, the Daviess-Martin County Medical Society, has made arrangements with the Farm Security Administration to handle Farm Security cases. A report of this county society's experience in this type of work is to be published in the near future in the state JOURNAL.

*Redraft of principles.* Because of the fact that a misunderstanding existed concerning several points of the principles in the original draft of the agreement with the Farm Security Administration, the principles were redrafted and printed in the February, 1939, Journal of the Indiana State Medical Association.



5. *Decision of the Indiana Appellate Court.* Recent decision of the Indiana Appellate Court which upheld the ruling of the Industrial Board that a patient under the Indiana law does not have the right to choose his own physician and receive compensation from the state for services rendered by the physician was the subject of much discussion by the committee. The committee feels that if ever the state takes over compensation work (and there was an attempt at the last session of the legislature to do just this), an amendment must be written into such act allowing the patient to choose his own physician.

**(B) CARE OF THE INDIGENT SICK.**

At numerous times complaints have been received in regard to the failure of township trustees to pay bills for emergency relief cases. An arrangement has been made whereby such complaints, as they are received, are referred to the attorney for the Township Trustees Association, in order that an investigation may be made by the attorney who has assured the Indiana State Medical Association that every effort will be made to inform the township trustee of his obligations under the law, to see that treatment is rendered the indigent sick and that doctors receive their fees for such emergency work.

*Study of situation recommended for each county.* The committee recommends that the question of township relief be given careful study and consideration by each county medical society and that each local county medical society do everything possible to keep township trustee bills within reason and assure the public of adequate services in township trustee cases. The committee cannot stress too strongly the importance of such action on the part of each society as too often the medical profession in the past has been vulnerable to criticism because of bad practices which have sprung up in a few communities in handling the medical care of the indigent. The situation is well summed up by John S. Leffel, M.D., president of the Fayette-Franklin County Medical Society, who says, "Socialized medicine is when one attempts to make money out of the care of the indigent."

**(C) GROUP HOSPITALIZATION.**

One of the most important problems which developed during the year was that in regard to group hospitalization. Following numerous conferences with the legislative committee of the state medical association, a committee of the Hospital Association, representatives of commercial insurance companies, and other groups, the state association, in accordance with the policy adopted by the House of Delegates of the American Medical Association and the Indiana State Medical Association, helped formulate and gave its approval to a group hospitalization measure which was introduced and passed by the Legislature. This measure was in the form of an enabling act amending the present state insurance laws and thereby allowing the formation

of voluntary non-profit group hospitalization organizations. Although passed by the General Assembly this measure was not signed by the Governor. Since that time a committee has been appointed by the Governor to study the possibility of establishing a non-profit hospitalization plan in Indiana before the next session of the legislature, such a plan of course to come within the scope of the present insurance act. In the meantime the Permanent Study Committee on Health Insurance and National Medical Situation of the state association has had several meetings, at least one of them a joint meeting with the Executive Committee, and the Executive Committee suggests that the officials of each county medical society carefully study the report of the state association insurance committee. In the meantime, other states, notably New Jersey and Michigan, have not only legalized the establishment of group hospitalization plans but also medical service plans under regulations which are very strictly drawn and guarded. The Executive Committee has been carefully following the developments in these and other states. At the present time the Executive Committee feels that it would be much better to wait until the next session of the legislature and make sure that a correct non-profit enabling act is upon the statute books rather than have some "make-shift" plan adopted which would prove in the long run to be unsound and unwise.

**(D) SICKNESS INSURANCE AND SOCIALIZED MEDICINE.**

Although the Legislative Committee has been the one to carry on the active battle against socialized medicine, scarcely a meeting of the Executive Committee was held during the year that this subject was not discussed in one or more of its important phases. The committee feels that the future will increase rather than lessen the interest of the public in this subject and tension will grow over its direct and indirect implications. Your committee believes it an obligation of every physician in the state to keep himself thoroughly informed concerning this subject by being in constant touch with *THE JOURNAL* of the Indiana State Medical Association and *The Journal of the American Medical Association*. In addition every physician should have a general knowledge of current thought upon this subject as expressed in the lay press and lay magazines.

**(E) DIRECTOR OF RESEARCH ON SICKNESS INSURANCE.**

In addition to the Permanent Study Committee on Health Insurance and National Medical Situation, the Executive Committee authorized the appointment of W. U. Kennedy, M.D., of Newcastle, as Director of Research on Sickness Insurance of the Indiana State Medical Association. Dr. Kennedy served as chairman of the Committee on the Study of Health Insurance of the state association for a number of years. During that time he has made numerous trips to Europe and thereby speaks with authority in regard to plans for medical treat-

ment in England, France and Germany. It was felt that in addition to continuing to serve on the newly created Permanent Study Committee he should also be in a position to further his individual studies along that line and hence the committee conferred upon him the special title mentioned above.

(F) "MEDICAL CARE FOR ALL THE PEOPLE" SURVEY.

Following the suggestions from the American Medical Association the Executive Committee lent its entire cooperation to the parent body in making the "Medical Care for All the People" survey. Through bulletins to county medical society secretaries and through numerous articles of explanation in regard to the survey which appeared in THE JOURNAL, the Executive Committee did its best to interest and urge all counties in carrying out the survey. Of the 83 county medical societies in the state, 30 counties carried into effect the survey in one form or another. The committee at this time particularly wishes to cite the Vanderburgh County Medical Society for doing an outstanding bit of work which was recognized not only in this state but throughout the country as one of the outstanding survey jobs done by any local organization in the country. The Vanderburgh County Medical Society employed an expert accountant to collect, correlate and analyze the facts obtained from the survey. A detailed report on the Vanderburgh County Medical Society survey was carried in *The Journal of the American Medical Association*. The Executive Committee felt that rather than attempt to make any analysis of the survey which would cover the entire state, the facts and comments in regard to the findings obtained in the various localities would be far more valuable than would be any attempt to generalize as regards the entire state. One thing that the survey did bring out was that the situation concerning medical care is not as acute as it must be in many of the other states and that medical care generally in Indiana can best be directed through local channels rather than from Indianapolis or from Washington.

(G) LICENSING OF MATERNAL AND SMALL NURSING HOMES.

Under an old state law the State Board of Charities which was absorbed by the Department of Public Welfare formerly licensed maternity and small nursing homes. During the year a letter was received from the director of the Children's Division of the Department of Public Welfare in regard to a program for licensing these maternity hospitals and nursing homes, which procedure had been discontinued with the abolition of the State Board of Charities. This matter was referred by the Executive Committee to the State Board of Health Liaison Committee to Deal With Social Security Act, and the committee here wishes to express its deep appreciation to and highly commend Dr. E. O. Asher, chairman, and the Liaison Committee for the splendid job which was done.

The report of the committee was published in the July, 1939, issue of THE JOURNAL of the State Association. The committee feels that not only should standards be set for maternity and small nursing homes but that standards should also be set for the many so-called convalescent and nursing homes throughout the state, some of which are known to be absolutely inadequate and far below standard.

(H) FOREIGN PHYSICIANS IN THE UNITED STATES.

This problem which is nationwide as well as statewide in scope was discussed several times during the year in all its phases by the committee. Following is the ruling of the Indiana State Board of Medical Registration and Examination in regard to admission of foreign physicians to Indiana:

Any graduate of a school located outside of the United States and its possessions must repeat his senior year in a medical school recognized by the Indiana State Board of Medical Registration and Examination and then he must take the State Board examination. But a foreign graduate who possessed a license obtained by examination in any state with which Indiana reciprocated prior to January 11, 1938, would be eligible to an Indiana license by reciprocity provided he met the minimum requirements.

Following is a report on foreign physicians licensed in Indiana within recent years, classified as graduates of medical schools in the United States and graduates of foreign medical schools:

Year Ending June 30	U.S.	Canada	European Countries
1930 .....	181	1	1
1931 .....	153	1	1
1932 .....	129	....	2
1933 .....	139	....	2
1934 .....	177	....	....
1935 .....	148	2	2
1936 .....	174	4	2
1937 .....	185	1	4
1938 .....	169	2	6
Total	1465	11	20 Total 1496

Since Indiana does not require citizenship, the approximate numbers shown above are classified in just three groups: United States, Canada, and all European countries.

Approximately fifty made inquiry or application to the State Board of Medical Registration and Examination during the year 1938 who were ineligible for licensure under the Foreign Medical School graduate regulation.

(I) COMMITMENT OF PATIENTS TO UNIVERSITY HOSPITALS.

The statute which was passed at the 1939 session of the legislature giving the judge full commitment powers to the University hospitals has been discussed several times in THE JOURNAL.

The views of the Executive Committee in regard to this are expressed in bulletins which were distributed on July 27, 1939, and August 5, 1939. They were essentially as follows:

"In order that you may obtain the background for the new so-called 'new I. U. Hospital Law' which



was passed at the last session of the legislature, your attention is called to the editorial which will appear in the August issue of THE JOURNAL of the Indiana State Medical Association. As you know, much has appeared lately concerning this act in the papers and several county medical societies have held special meetings to discuss this new legislation and its potential effects upon the practice of medicine in this state. Your Executive Committee discussed this act in detail at its last regular monthly meeting, July 23, and authorized the transmission of the following statement and suggestions to each local county medical society for its consideration and action:

"1. The Executive Committee feels definitely that despite some mistakes in the act, it is a step in the right direction and if properly administered should lessen the requests for admission to the university hospitals.

"2. The following letter was sent to the Attorney General requesting an interpretation of the act:

"The members of the medical profession are deeply interested and concerned in the administration of the new statute which appears in the Acts of 1939, Chapter 6, entitled, "An Act to provide medical and surgical care and hospitalization for indigent persons." For that reason we request your unofficial interpretation of the act, outlining its scope, and particularly we desire a clarification of those statements in the law which give authority to the judges of the local courts to commit persons to hospitals operated by the trustees of Indiana University. We are especially interested in knowing whether or not it is discretionary or mandatory on the part of the court to make such commitments."

"The reply from the attorney general's office is as follows:

"This will acknowledge your request of July 24 for an unofficial opinion interpreting and outlining the scope of Chapter 6 of the Acts of 1939, commonly known as the *Hospitalization of Indigents Act*.

"This law has as its general purpose the setting up of machinery to take care of adults, that is, persons over sixteen years of age, who may require treatment that can well be furnished by some of the hospitals, such as Coleman, which are under the management of the Trustees of Indiana University. The judge of any court in the state is given authority under the act and is empowered to commit any person over sixteen years of age, who has actually resided in his county for a year, to such hospital for treatment. This commitment can only be carried out under the following conditions:

"1. The applicant must not be suffering from a chronic malady or a permanent deformity.

"2. The applicant must not be financially able to defray the necessary expenses for such treatment.

"3. The applicant must actually have resided or lived in the county for at least a year prior to his application.

"4. Any citizen may file a petition for such commitment before the judge.

"If all the above requirements are met by the applicant, the judge must hold a public hearing with the prosecuting attorney of the county in attendance and the judge may, in his discretion,

have such applicant examined by one or more reputable physicians who must file with the clerk of the court a written report of their examination. If, after the hearing, the judge finds that the applicant is a proper subject for treatment and actually authorizes the commitment of the applicant to a hospital, the clerk of the court is under a duty to carry out the details of making application forms for the hospital and providing for the transportation of the applicant to the hospital, and other details.

"I wish to point out that all the costs of such a proceeding shall be paid from the county treasury through the medium of the county treasurer reimbursing the state treasurer for his payment upon a hospital's certified statement of the cost.

"The latter sections of the act refer to the placement of crippled children under the jurisdiction of the Department of Public Welfare and do not immediately touch upon the questions outlined in your letter.

"In your request for an unofficial opinion, you state that the medical profession is especially interested in knowing whether or not it is discretionary or mandatory on the part of the court to make such commitments as are contemplated under the act. I call your attention to the pertinent language of Section 2 of the act, a part of which is here quoted:

... If such judge finds, on the hearing, that such person is a proper subject for treatment in such hospital, and commits such person thereto, the judge shall cause the clerk of the court to make an application for the admission of such person to the hospital on a form to be furnished by the hospital.

"The above language does not require interpretation. It is obvious that the judge has complete discretion to do two things: namely, (1) to determine whether or not the applicant is a proper subject for treatment; and (2) the power to commit or not to commit such applicant to the hospital, regardless of the court's determination of the question whether or not the applicant is a proper subject for treatment. Thus, it is seen that the discretion of the court is unlimited. He may find the applicant not a proper subject for treatment, in which case the application or petition is, in effect, denied. The judge may find the applicant a proper subject for treatment but may deem it advisable to recommend his treatment in a local hospital or in any county institution in the care and charge of the officials of the city or town or the township trustee, as the case may be. Or, finally, the judge may find the applicant a proper subject for treatment and exercise his authority to commit the applicant to a hospital under the management of the Board of Trustees of Indiana University as provided for in the act.

"In summary, I should say that this is a voluntary law which simply empowers courts to commit indigents in need of medical care to a state hospital when the court, in the exercise of his discretion, deems such a course advisable."

"3. Your committee suggests that each county medical society meet with or appoint a committee to meet with the judge and trustees and discuss the problems arising from the new act and arrive at some definite policy in regard to sending cases to Indianapolis. The headquarters office has been informed that this already has been done by the

Bartholomew and Lawrence County Medical Societies.

"4. Your committee further suggests that a committee be named by your society to pass on all cases in which a physician prepares a petition to send a patient to one of the university hospitals and that arrangements be made with the judge to accept findings of such committee.

"5. The Executive Committee of the Indiana State Medical Association once again wishes to restate and emphasize the policy which it has expressed on numerous occasions—that whenever possible all patients should receive treatment in their own home community from their own family physician."

#### (J) GOVERNMENT CASE AGAINST BROMO-SELTZER.

The committee desires to call the attention of each physician in the state to the article which appeared in the June 3, 1939, issue of *The Journal of the American Medical Association* in regard to the Government case against the manufacturers of Bromo-Seltzer. The committee hopes that doctors will cooperate with the Government agents in making an investigation concerning any addicts, if such information is desired by Government agents.

### III. THE JOURNAL

The C. E. Pauley Company will complete their second year of printing THE JOURNAL this year. Bids are due to be called for in October of this year unless the Council wishes to accept the Pauley Company's proposition which is that they will produce THE JOURNAL during the year 1940 at the existing rate with the understanding that any increase in the present market price of the paper used in THE JOURNAL, \$6.45 cwt., will be borne by THE JOURNAL.

#### Advertising

The usual donations of advertising space were given in 1938 to the American Red Cross and the National Tuberculosis Association. Halftones are supplied by the organizations for this purpose.

#### Advertising Revenue

While 1938 provided a satisfactory statement financially, the revenue from advertising in 1939 probably will show a slight decrease. For the first six months of the year, a comparison with the last few years is revealing:

First six months	1937	1938	1939
Cooperative Bureau	2,772.46	2,940.44	2,671.24
Direct	1,927.77	1,827.65	2,569.75
Totals	4,700.23	4,768.09	5,240.99

While there is a slight increase in total advertising revenue for the first six months, the increase is wholly in the advertising obtained through our headquarters office. The Cooperative Medical Advertising Bureau amount has been reduced through cancellations of some national advertising and

through reductions in schedules of other national advertisers. Two national advertisers have been lost because they became ineligible for space in state magazines due to unethical lay advertising.

It is not inappropriate to mention here the value of having subscribers answer advertisements. It is the most effective way of letting advertisers know that their advertising is valuable. The support of members in this manner is invaluable.

A recent survey of 500 Indiana physicians has been made by Dr. Shanklin who selected the names at random, being sure only that they were well distributed geographically. Almost fifty per cent of these have been answered and returned and replies continue to come in. A complete report of this survey will be published in the October JOURNAL.

#### Collection Agency Advertisements

The Executive Committee has ruled that THE JOURNAL will publish no advertising for collection agencies.

#### Number of Pages printed in 1938 in Comparison with Other Years

Year	Reading Pages	Per Cent	Adv. Pages	Per Cent	Total	Average Pages Per Issue
1933	634	64%	358	36%	992	82
1934	604	60	408	40	1012	84
1935	704	62	428	38	1132	94
1936	680	59	472	41	1152	96
1937	674	57	514	43	1188	99
1938	728	60	504	40	1232	102

These figures reflect a slow but steady increase. It has been our goal to publish an average of 100 pages per month, and in 1938 that goal was reached for the first time. The percentage of advertising is not as great as these figures show, because advertising pages in the back section of the book are divided into half pages of reading with advertising, and occasional whole pages of reading matter. However, they are in the advertising section and are listed as advertising pages.

### IV. MEDICAL DEFENSE ACTIVITIES

1. *Malpractice Cases.* A year ago at the time of this report, August 1, 1938, the following fourteen cases were pending before the committee, three of which were closed during the year, leaving eleven cases still pending:

Case No. 129—No new developments since 1925. Letters not answered. Case closed.

Case No. 156—Suit filed March 27, 1928. Verdict for plaintiff after six days' trial in 1933; case to be appealed. Expense, \$66.28, paid September 23, 1929; \$350.00, paid June 30, 1933. Case pending.

Case No. 200—Suit filed February 12, 1932. Pending.

Case No. 203—Suit filed August 21, 1934. Pending.

Case No. 210—Suit filed September 18, 1935. Case settled out of court for \$500. Bill from attorneys still unsettled.

Case No. 212—Suit filed November, 1935. Case tried December 2, 1936. Nine days' trial and ar-



gument; verdict against defendant; case to be appealed by defendant. Expense to date, \$293.15, paid January 13, 1937.

Case No. 214—Suit filed April 1, 1936. Case venued and still pending.

Case No. 215—Suit filed June 22, 1936. Report May 17, 1938, plaintiff deceased. Motion of defendant to dismiss action sustained by court on June 13, 1939. Attorney's bill pending.

Case No. 216—Suit filed March 16, 1936. Pending.

Case No. 219—Suit filed March, 1934. Verdict against the defendant. Appeal pending.

Case No. 221—Suit filed July 1, 1937. Pending.

Case No. 222—Suit filed July 8, 1937. Pending.

Case No. 223—Suit filed July 31, 1937. Plaintiff took change of venue. April, 1939, motion filed to dismiss the cause for lack of prosecution, which court denied, and plaintiff filed a demurrer to the attorney's affirmative answer. May 8, 1939, court handed plaintiff's decision overruling the demurrer. Pending.

Case No. 224—Suit filed April 8, 1938. Pending.

Since August 1, 1938, and up to August 1, 1939, the following three new cases have come before the Committee, none of which has been closed, making a total of fourteen cases pending at the present time as against the same number of unclosed cases at the same time last year:

Case No. 225—Suit filed July 28, 1938. Pending.

Case No. 226—Suit filed November 5, 1938. Suit withdrawn and another filed including a bonding company as co-defendant. Pending.

Case No. 227—Suit filed April 7, 1939. Pending.

No expense has been incurred for medical defense from August 1, 1938, to August 1, 1939, but several bills for attorneys' fees are pending at the present time. The cost for the preceding year was \$15.00.

2. Medical Defense Fund Statement, from August 1, 1938, to August 1, 1939:

Balance August 1, 1938.....\$4,566.65

Deposits:

Dues,		
57—1938 members @ 75c \$	42.75	
2,991—1939 members @ 75c	2,243.25	2,286.00
Interest on bonds		377.50
		<hr/>
		\$7,230.15

Disbursements:

Malpractice fees	\$000.00	
Salary of Association attorney	600.00	
Treasurer's bond	15.00	
Miscellaneous	.70	615.70
		<hr/>

Balance in checking account Aug. 1, 1939 \$6,614.45

V. CONCLUSION

The recommendations of the committee which call for specific action by the House of Delegates follow:

1. Suggested Change in the Constitution.

"BE IT RESOLVED That Article II, of the Constitution of the Indiana State Medical Association be amended by striking out the words, 'to guard and foster the material interests of its members and'."

2. Suggested Change in By-Laws to allow joint societies to have a delegate from each county to the annual session of the State Association. Word has been received that in several instances county medical societies would consider forming joint organizations were it not for the fact that by so doing they would lose, under the present By-Laws, one delegate to the State Medical Association. This being the case the Executive Committee feels that if such joint county medical societies would do a better job than is now done by the societies separately, such provision should not stand in the way. Hence the Executive Committee recommends the adoption of the following resolution at the Fort Wayne meeting in October:

"BE IT RESOLVED That Chapter IV, Section 2, of the By-Laws of the Indiana State Medical Association be amended by striking out the period after the word 'delegate,' in line 8 of the said Section, and substituting a comma therefor, and then by adding after the comma the following:

'except that where a component society is made up of physicians of more than one county, each county shall be entitled to at least one delegate to be selected by the physicians residing in such county.'"

3. Resolution in regard to Expenses of Committeemen. As time goes on, the duties of the various committees appointed by the state medical association are constantly increasing. As a result the members of the committees who are busy physicians are called away from their practice to attend committee meetings. Your Executive Committee feels that it is only right that the expenses of these men who give their time and effort to a consideration of the problems at hand be paid. At the present time the expenses of committeemen in attending committee meetings can be paid only when such has been especially ordered by either the House of Delegates or the Council. Hence, the Executive Committee recommends to the House of Delegates and the Council that traveling expenses for all committees for special called meetings be paid and that this action be made retroactive for one year.

Respectfully submitted,  
CLEON A. NAFE, M.D., Chairman,  
C. H. MCCASKEY, M.D.,  
E. M. VAN BUSKIRK, M.D.  
KARL R. RUDELL, M.D.,  
M. A. AUSTIN, M.D.

## COMMITTEE ON PUBLIC POLICY AND LEGISLATION

### *House of Delegates.*

#### *Indiana State Medical Association*

Gentlemen:

During the early part of the year the State Legislature was in session. Many bills were considered affecting the practice of medicine, some of which passed and some did not. For a complete description of these bills you are referred to the April issue of *THE JOURNAL* of the Indiana State Medical Association. There were, however, several pieces of legislation considered which merit the further study and action of the House of Delegates.

#### **State Board of Health**

With all of the agitation for increased activities of the State Board of Health it was deemed advisable to attempt to divorce some of the control of this department from politics which would have been accomplished had House Bill 476 become a law. The bill passed both Houses of the Legislature but was not signed by the governor. One of his reasons for not signing the bill was that it would place the control of this important department in the hands of the medical profession. Your committee recommends that the fight to change the status of the Board of Health be continued until this important reform has been accomplished.

#### **Annual Registration of Physicians**

Late in the session a bill was introduced, endorsed by the State Board of Medical Registration and Examination, which would require the annual registration of all of those persons licensed by this board. This would include not only doctors of medicine but osteopaths, chiropractors, naturopaths, and all others licensed by this board. The annual fee would have been \$2.00. The annual registration of all those practicing the healing arts would provide a means of knowing who was properly licensed. Owing to its introduction so late in the session, this bill did not pass. Your committee did not actively work for this bill nor did it work against the bill as the House of Delegates had not taken any stand on this important question. Your committee recommends to the House of Delegates that it approve this important legislation so that there may be some practical means of controlling the cults from now on.

#### **Hospitalization Insurance**

A bill was introduced and passed the legislature but was not signed by the governor which would have permitted the operation of so-called non-profit hospitalization insurance plans. The House of Delegates at its meeting last year approved of hospital insurance, but the approval did not designate whether hospital insurance should be on an indemnity basis or a service basis. Hospitalization insurance on a service basis is fraught with the grave danger of growing into insurance covering many features of the actual practice of medicine with the attendant dangers of fee schedules and

a lowered quality of medical service. Hospital insurance on an indemnity basis will meet the needs of those needing such insurance and yet not endanger the present practice of medicine. Therefore, your committee recommends to the House of Delegates that it re-endorse hospitalization insurance, but with the two following added qualifications: First, that it must be on an indemnity basis and not a service basis. Second, that any plan must be approved by and must operate under the jurisdiction of the Insurance Department of Indiana, in order to assure a proper financial stability.

#### **University Hospitals**

A new act was passed concerning the admission of patients to the university hospitals. Under the old law patients were sent to the hospitals (Long and Coleman) by the township trustees. The cost was paid for out of the university budget. The new law provides that patients for the Long and Coleman Hospitals are sent by county judges and the cost is paid by the county sending the patient, thus placing the admission of patients to the Long and Coleman Hospitals on the same basis as patients to the Riley Hospital. It is the opinion of your committee that, since the cost of university hospitalization is now being paid by the county sending the patient whereas formerly this service was rendered free to the counties, there will be much more care used in the sending of patients to the university hospitals and that there will be a greater preference for the use of local hospitals. Your committee endorses the suggestion of the Executive Committee that each county society have a committee to work out policies and to review admissions to the university hospitals by the various county judges.

#### **National Affairs**

Your committee has been called upon at various times to aid the A. M. A. with national problems. We have cooperated to the fullest extent and are happy to report that much objectionable national legislation has failed and that the District Federal Court of Washington, D.C., has thrown out the suit against the A. M. A. on the grounds that the practice of medicine is a profession and is not a trade or business and hence is not subject to the anti-trust laws.

#### **Barbiturates and Poisons**

Your committee endeavored to obtain legislation which would result in the control of sales of barbiturates. There was a tremendous opposition by certain groups, and as a result the legislation did not pass. Your committee recommends that further attempts be made to obtain the passage of such bills until this is accomplished.

#### **Public Officials**

Throughout the year your committee has maintained close contact with those public officials having possible connections with the practice of medicine. Your committee again recommends that every county society study carefully, interview,



and have friendly relations with all candidates for public office, but especially township trustees, judges, candidates for the state legislature, candidates for governor, lieutenant governor, congress, and the United States Senate, and that whenever any pertinent information concerning the views of such candidates towards the practice of medicine is obtained that it be sent to your committee. Your committee especially wishes to commend the Sixth Councilor District on their method of working with their congressmen. In brief their system was to invite their congressional candidates to a dinner at which time medical questions were freely discussed and a sympathetic understanding was obtained.

#### Conclusion

Your committee in closing wishes to state again that the problems of legislation and public policy cannot be handled exclusively by such a small committee as ours but demands the personal attention not only of all officers of the State Association, district and county societies, but of every member of the State Association. Your committee sincerely appreciates the splendid cooperation it has received in the past.

Respectfully submitted,

NORMAN M. BEATTY, M.D.,

WILLIAM J. WRIGHT, M.D.,

*Co-chairmen,*

O. T. SCAMAHORN, M.D.,

GEORGE DANIELS, M.D.,

GEORGE DILLINGER, M.D.,

W. W. WASHBURN, M.D.,

C. M. JONES, M.D.,

O. T. BRAZELTON, M.D.,

C. B. PARKER, M.D.

### THE BUREAU OF PUBLICITY

*House of Delegates,*

*Indiana State Medical Association*

Gentlemen:

#### I. PUBLICITY COMES INTO ITS OWN

With the ever-increasing flood of pamphlets, brochures, newspaper and magazine articles, full length novels and didactic tomes analyzing, criticizing, and attacking the medical profession, doctors throughout the country have asked with increasing frequency and urgency, "Why doesn't someone tell our side of the story?" Hence, throughout the country, state and local medical organizations are forming public relations committees, health educational bureaus, and publicity boards, to present the views of the profession to the public and give them the facts in regard to scientific medicine, its accomplishments and its ideals. Thus, what was done through the establishment of the Bureau of Publicity in Indiana more than sixteen years ago is now getting under way throughout the country. For instance, the Ohio State Medical Association, which for years has been one of the foremost

medical organizations in the nation, has only within the last few months established a committee to do work similar to that which is carried on in Indiana by the Bureau of Publicity.

#### II. INDIANA PLAN FOR MEDICAL LEADERSHIP GAINS MOMENTUM

Feeling, however, that something more than mere written or spoken words were needed, if the medical profession is to continue to merit the confidence and the trust which the public should place in it, the Bureau of Publicity last year formulated and presented the "Indiana Plan"—a plan which points out how each local medical society may assume leadership in all lines of preventive medicine in its community *now*, before it is too late. This plan should be well known to all the physicians of Indiana by this time along with the story of how it was adopted first by the House of Delegates of the American Medical Association at the 1938 annual session at San Francisco, then by the American Legion for its health program at Los Angeles. The plan has become a standard outline of procedure for activity in health education and preventive medicine in many communities throughout the United States.

#### III. MIDDLETOWN MODERNIZES MEDICINE

Most physicians too are familiar with the recent developments of the plan which was worked out by the Delaware-Blackford County Medical Society as a sequel to the "Indiana Plan" under the title, "Middletown Modernizes Medicine," and presented in the notable scientific exhibit at the St. Louis meeting of the A. M. A. last May. The Delaware-Blackford County Medical Society has undertaken to show how the "Indiana Plan" may be put into actual operation by a typical county medical society.

#### IV. ALTERNATIVE TO SOCIALIZED MEDICINE

The Bureau of Publicity recommends the "Indiana Plan" and the principles involved as a constructive alternative plan for state or federal controlled medical services. The Bureau takes pride in presenting the "Indiana Plan" as a real contribution of the Indiana State Medical Association to the medical, economic, and social thought of the nation and we sincerely hope that the "Indiana Plan" and its accompanying county plan will give inspiration to all physicians who see it and that it will be a direct, definite aid to more than one society in assuming leadership in all things pertaining to medical service and health activities on behalf of its citizens.

#### V. "HALL OF HEALTH"

The Bureau is looking forward with a great deal of interest to the new project which is to be sponsored by the Fort Wayne Medical Society in conjunction with the ninetieth annual session of the Indiana State Medical Association to be held at Fort Wayne October 10, 11, and 12, 1939. This

project, which will be known as the "Hall of Health" will be sponsored jointly by the Fort Wayne (Allen County) Medical Society and the Indiana State Medical Association. The "Hall of Health" will be an exhibit primarily for the public. It is to be held in the Allen county court house and will be confined to educational material. The material for display of interest to the public will include such features as Wyeth's picture of Alexis St. Martin and Beaumont, an oil reproduction of The Doctor, an iron lung, and the glass replica of the Transparent Woman. There will be educational movies and displays. The bureau sincerely hopes that this effort will be such as to demand the attention of the local medical society annually in each city where future state meetings are held.

## VI. ETHICAL PROBLEMS

1. **Bureau authorized to give opinions.** Some years ago the Bureau of Publicity was authorized by the House of Delegates to give opinions concerning certain ethical practices. The bureau, of course, has no legal jurisdiction and is not an administrative body of the association but by the authority of the House of Delegates it is given the right to give opinions which become official in nature as far as the members of the state association are concerned. As a result of this function, the bureau has become the source to which many local medical associations refer their questions having to do with the principles of medical ethics. Among the questions which have come before the bureau involving the principles of medical ethics during the past year are the following:

(1) *Neon signs.* "Are neon signs ethical?" is a question which has been asked many times of the bureau within the past several years. Of course a great deal depends upon the size, the location and the prominence of such signs. A sign does not have to be a neon sign to be in bad taste. Lettering on an office window or a door which is over-conspicuous in size or in coloring is bad taste and hence unethical. If all the physicians in a town use a sign of the same size it would not be unethical, but if one physician used a neon sign and the others did not use neon signs, that would give undue prominence to one physician's name, and hence the Bureau feels that the use of a neon sign in this instance would be a breach of local custom and therefore unethical.

(2) *Individually conducted postgraduate course.* The attention of the bureau was called by the Executive Committee to a postgraduate course which was given under the direction of two individual physicians.

After considering this matter from all sides the bureau is of the opinion that postgraduate instructional work should be carried on not under the sponsorship of individual physicians but under the sponsorship of authorized local medical societies and organizations or of component branches or

committees of the American Medical Association or the Indiana State Medical Association or by affiliated bodies, or by the Indiana University School of Medicine.

(3) *Major surgery without special training.* The following question was asked of the Bureau of Publicity by a secretary of a local county medical society: "What does the state society do about doctors trying to do major surgery without any training whatsoever?" The answer of the bureau to this question follows:

"When a physician who has had no training in surgery, such as is indicated in your question, attempts to do any surgery, said physician should be brought before the board of censors of the local society and warned of the dangers involved. If he persists, the society should determine what action to take relative to his continued membership in the society.

"Such matters should be called to the attention of the official board of the hospital where said operations are performed and such communications should convey to the hospital board the disapproval of the local medical society.

"If the results of the above efforts are not satisfactory, attention concerning this matter should be called to the councilor of the district."

## VII. HISTORICAL WORK

1. **Work of historian in Indiana.** A summary made by the historian of the association in regard to material which he has collected in the past two years during his term of office follows:

"Up to the present time the situation in the different counties in regard to a medical history is as follows:

"I have from Bartholomew county a short history of the medical society prepared by Dr. Zaring.

"In Cass county I have a copy of the publication of Dr. George D. Miller in 1920 entitled, 'A Biographic Sketch of the Deceased Physicians of Cass County.'

"In Clay county I have a copy of Finley's 'One-half a Century of Hoosier Medicine' and also a booklet issued by the County Society giving a medical history of the county.

"In Daviess county Dr. A. G. Blazey has prepared a very excellent medical history of the county.

"In DeKalb county I have some newspaper clippings and Dr. Stewart's story of early Auburn.

"In Delaware county I have a brief history sent in by Dr. Covalt.

"From Dubois county Dr. C. W. Schwartz has kindly compiled a series of notes on his memories of the medical history of this county.

"In Fayette county Dr. Elliott kindly loaned me the records of their Medical Society which they have kept from its origin in the 60's and we have made quite copious extractions from them for a basis of a history from this county.

"From Floyd county we have a few clippings and some letters but no very complete history.

"In Gibson county Dr. Graves is completing his history of this county which he started some years ago.

"In Jackson county Dr. Kamman kindly furnished me their records and copious extractions were made from this to form a basis of a medical history from that county.

"In Jefferson county I have some clippings and letters but no definite history of the county.



"In Knox county we have enough material which I collected myself from the Western Sun to write a very respectable history of this county.

"In LaGrange county Dr. Hildebrand is collecting and preparing a history of this county.

"In Lawrence county we have the medical notes of Dr. Smallwood.

"In Madison county I have some notes from Dr. Austin but no complete history.

"In Marion county Dr. Wishard, Sr., has recently agreed to compile the history.

"In Montgomery county no complete history but a number of clippings and notes.

"In Owen county Dr. Thom has been collecting material and expects to complete a history.

"From Posey county I have an incomplete history written by Miss Welborn which I am hoping to get in complete detail shortly.

"In Stark county we have a number of clippings and notes only.

"Sullivan county has a complete history written by myself.

"Tippecanoe county has some clippings and other articles but no complete history.

"From Vanderburgh county we have a very satisfactory history written by Miss Welborn.

"In Vigo county we have quite a compilation of notes and Mrs. Marion Gray, Dr. Weinstein's daughter, is assisting me in completing a history.

"In Wabash county Dr. Biggerstaff has sent me a number of notes of this history and Dr. N. H. Thompson is also expected to contribute.

"In Washington county we have a complete medical history by Dr. L. W. Paynter, published in 1931.

"In Wayne county Dr. A. J. Whallon has compiled a fairly complete set of notes.

"From the remaining counties of the state we have been unable as yet to obtain anyone who would attempt to collect material so you see we have quite a long job ahead of us yet.

"I also find that I am handicapped to some extent by the fact that Dr. Zerfas had already got much of this material and had secured a history or in a good many cases had the source material and I find it hard to secure anything in the way of material or assistance."

**2. Graves of medical heroes and heroines.** During the year the bureau discussed further the plans for memorializing Dr. John Stough Bobbs, Dr. John Lambert Richmond, Mrs. Jane Todd Crawford and Mrs. Z. (Mary E.) Burnworth. The bureau suggested to the chairman of the Pioneer Memorial Committee of the Woman's Auxiliary to the Indiana State Medical Association that the following methods be used to memorialize these pioneers:

(1) Place a bronze tablet to them in the medical school building.

(2) Place a stone marker at the graves of each of these pioneers.

The following letter was received from the chairman of the Pioneer Memorial Committee of the Woman's Auxiliary:

"Yours of June 27, 1939, received and I am delighted to know at your meeting on June 22 plans were discussed for memorializing our medical heroines. The chairman of the Bureau and I have been carrying on quite a correspondence lately. I have gotten beautiful letters from relatives of Dr. John Richmond, who are delighted to know his grave will be marked in some such manner as you allude to in your minutes. Sorry my committee

could not have met with you so that we might have come to some conclusion as to what and how to mark such markers. I am enclosing a memorandum of the road signs which have been erected by the Woman's Auxiliary last year. Will you be so kind as to copy it for your records and return it to me as it is my only copy?

"With the Bureau's permission I will ascertain prices of bronze tablets for the library and stones for the graves, and then communicate with you again, for I have no doubt the state association will be glad to bear the expense, or if your committee would prefer to do it themselves you can advise me."

Copy of the memorandum which accompanied the above letter follows:

"Grave of Medical Heroine  
(right)

"Road 63. Turn (left at next road 1/4 mile for grave of (Sullivan, Jane Todd Crawford upon whom Dr. Ephraim Ind.) McDowell performed at Danville, Kentucky, the first operation in the world for an Ovarian Tumor in 1809."

"Grave of Medical Heroine  
(left or

"(Pendleton Pike, "Turn (right at next road, one mile, for grave of Road 67) of Mary Burnworth upon whom Dr. John Stough Bobbs performed at Indianapolis, Indiana, the first operation in the world for Gall Stones in 1867."

"Grave of Pioneer Surgeon

"In Springvale Cemetery, Lafayette, Indiana, is the grave of Dr. John Lambert Richmond, who performed the first Caesarian operation west of the Alleghenies in 1827."

## VIII. PROBLEMS OF PUBLICITY

**1. Policy for future releases.** Detailed consideration has been given by the Bureau in regard to the best policy to be followed concerning future releases. Letters were written to the secretary and other officers and the editor of *The Journal of the American Medical Association* asking just what in their opinion should be the policy for future releases, that is, should the Bureau prepare for publication in the newspapers of the state a series of releases opposing socialized medicine, or should it continue its present policy of not touching directly the subject of socialized medicine but pointing out the triumphs and progress which have been made in the past and are continuing at the present time through the efforts of scientific medicine under the present system of practice? The letter follows:

"The Bureau of Publicity of the Indiana State Medical Association would be most pleased to have your opinion as to future policies to be followed by the Bureau in preparing newspaper releases for the public press of Indiana. The question arises as to whether or not the Bureau should change the policy which it has followed in the past concerning the subject matter of releases.

"Should the Bureau continue to point out in general ways the triumphs and good works of scientific medicine or should it give more attention to the economic phases of the subject and stress the opposition of the medical profession

through a series of articles on socialized medicine?

"From the following statement contained in the minutes of the last meeting of the Bureau of Publicity you can see that the Bureau feels that this is a question upon which advice from you as officials of the American Medical Association is greatly desired:

"The Bureau discussed at some length the policy to be followed in regard to future releases. Following the discussion the secretary was instructed to write to the secretary and the editor of The Journal of the American Medical Association asking for an opinion as to just what the policy of the Bureau should be in its future releases; that is, should the Bureau prepare for publication in the newspapers of the state a series of releases opposing socialized medicine, or should it continue its present policy of not stressing opposition to socialize medicine but pointing out the triumphs and progress which have been made in the past and are continuing at the present time through the efforts of scientific medicine under the present system of practice? The Bureau feels that it is faced with determining a definite policy in view of the pending indictment of the American Medical Association by the Department of Justice."

The Bureau received the following letters in reply to these questions:

*From the Secretary and General Manager of the American Medical Association:*

"I have before me your letter of April 17 addressed to Doctor Fishbein and to me, in which you ask for an expression of opinion with respect to the future policies of the Bureau of Publicity of the Indiana State Medical Association. I offer my opinion for whatever you and the members of the Bureau may consider it to be worth.

"I think it is highly important that the Bureau of Publicity of the Indiana State Medical Association should continue its established policy designed to provide the public with information concerning the factors that are involved in the provision of medical service and to acquaint the public with the accomplishments of scientific medicine. I also think it is desirable that the public should be warned against the dangers of medical frauds and of the necessity for the maintenance of high professional and scientific standards. At the same time, I know of no reason why the Bureau of Publicity should not undertake to inform the public concerning the nature of the policies of the organized medical profession in the United States and the reasons why these policies have been established and why an effort has been made to maintain them. To do that would, of course, involve the publication of information concerning sickness insurance and the reasons why the organized medical profession is opposed to compulsory sickness insurance and to any proposals

that would involve political domination of medicine. I think it is essential that the Indiana State Medical Association shall continue to occupy the status of a scientific and educational organization and that it should not be classified by governmental agencies as a business concern. I can think of no reason why the public should not be made to understand, if possible, the reasons why medical societies must be considered as scientific and educational organizations."

*From the Editor of The Journal of the American Medical Association:*

"I took the liberty of submitting your memorandum on publicity to two of the assistants in the field of press relations. One of them says that he believes the Bureau of Publicity of the Indiana State Medical Association should follow the policy of well balanced releases, dividing them between the scientific and the economic phases. The sending out of too much publicity on economics, especially on socialized medicine, will make newspaper editors think you are dealing wholly in propaganda rather than in educational material.

"He says that press releases pertaining to medical economics should be prepared so that they do not always stress opposition to undesirable parts of the federal program but include also most of those parts of the program which are approved by the medical profession.

"It is important to avoid phrases like 'socialized medicine,' 'state medicine,' and similar ill-defined terms. Unfortunately, newspaper clippings which come into this office are usually headed with the words 'fight' and 'oppose,' giving the idea that the profession is against everything. We should try to get rid of such phrases.

"It might be well to emphasize the fact that medicine is a highly scientific and technical subject in which the average person cannot choose for himself and that there must be dependence upon the medical profession for leadership in any program."

**2. Concise statements in regard to medical organization viewpoint upon socialized medicine.** In connection with an attempt by the Bureau of Publicity to obtain information as a guide for formulating the future policies of releases, the Bureau undertook to gain information from various sources as to the preparation and dissemination of concise statements giving the viewpoint of organized medicine upon socialized medicine. With this in view, the following letter was sent to the American Medical Association and to various committeemen of the state association:

"Although voluminous material is available both for and against socialized medicine, the Executive Committee of the Indiana State Medical Association feels that a definite need exists for a compilation of short statements that will be available to physicians who desire to prepare talks upon socialized medicine and material that will be suitable for use in press statements. A request for



such material has come from the chairman of a committee of the Monroe County Medical Society (Indiana), who has been appointed to arrange 'for some organized presentation of organized medicine's stand against proposed federal compulsory health insurance and allied problems.'

"The request of this physician continues as follows: 'I thought the state association might have some well worded articles for release through local papers. . . . I had in mind getting some newspaper publicity on the matter to focus attention on it and then to have the subject briefly discussed before the Chamber of Commerce, Service Clubs, etc.'

"Do you have information from other societies as to how this can best be done? I believe no time should be wasted in view of the fact that Senator Wagner has already introduced his measure in the Senate.

"I should like specific suggestions. . . . Do you have any literature suitable for lay distribution which would be readable and forceful?"

"In answer to this request numerous pamphlets and articles were sent to him by this office, by the Bureau of Medical Economics and the Bureau of Health and Public Instruction of the American Medical Association. However, the Executive Committee, in discussing this matter at its last regular meeting on April 10, felt that the busy doctor would not have time to go through all of this material or even a small part of it and that a series of short statements concerning the stand of organized medicine against socialized medicine should be available to every doctor in the state.

"In order to prepare such a series of statements the suggestion was made by the Executive Committee that each of the officers and the men on the above committees make a brief statement and submit it to the headquarters office of the state association in order that these statements may be compiled and copies supplied where they can best be used by the individual physicians throughout the state. The Committee felt that if this is done the doctors throughout the state would be telling substantially the same story to the laity rather than running the chance of talking at cross purposes.

"Along this line we would therefore appreciate any suggestions you might have in regard to this and any statements that you might feel should be contained in such a compilation to be used by physicians. The Committee specifically requests that each of the officers of the state association, the chairmen of the Legislative Committee, and the representatives from Indiana in the House of Delegates of the American Medical Association, prepare statements for this use."

The following answers to this letter were received:

*From the Secretary and General Manager of the American Medical Association:*

"I have before me your communication of April

17 pertaining to 'need for concise and clear statements to be used by physicians in combating socialized medicine'. You ask for my comment with respect to the matters discussed in this statement, and I am glad to offer it for whatever you may think it is worth.

"I am inclined to agree that there may be need for concise and clear statements to be used by physicians in combating socialized medicine. However, I do not believe that all of those who might be delegated to utilize such statements for the purposes indicated will agree that the selections which may be made by any individual or any small group of individuals are the best that can be made. In other words, a short, concise statement which will be considered by one man to be extremely useful may not appeal to another. Moreover, I think there is some danger in using statements that may be so abbreviated as to mean one thing but as to be interpreted as meaning something else. Much depends on what is meant by concise statements, and much depends on the use to which such statements may be put and the manner in which they are presented.

"I am particularly interested in the comment included in your communication to the effect that a busy physician does not have time to read the numerous pamphlets and articles that may be made available to him or 'even a small part' of such material. With all due respect to everybody concerned, I entertain strong doubt that anyone who has not given a very considerable amount of study to the general subject of sickness insurance should undertake to present arguments on that subject.

"However all this may be, I think it is a splendid idea to have the members of official bodies of the Indiana State Medical Association submit brief statements to the Executive Committee in order that these statements, after proper examination and such editing as may be indicated, can be distributed among the members of your association, but again I respectfully submit that it is difficult to include in very short statements necessary safeguards against misinterpretation and misapplication."

*From the chairman of the Bureau of Publicity:*

"Replying to your communication just received as to the need of concise and clear statements to be used by physicians in combating socialized medicine, I wish to give my hearty approval to the question involved. At the last meeting of the Bureau of Publicity you will recall that I suggested that there should be a concise statement of the attitude of the profession, including criticism of the proposal, and that every effort should be made to get county society members to use their influence with their own congressmen.

"At the next meeting of the Bureau of Publicity I hope you will have prepared in condensed, terse form, a series of suggestions expressing the attitude of the profession of medicine and various points in relation to proposed national legislation.

"My thought is that we should get into the hands of every county society a clearer, more definite, and yet a quite brief statement which they can use in writing their congressmen, at the proper time."

**3. Commercial publicity campaign.** Several societies of the state were approached by a commercial organization proposing an extensive newspaper advertising campaign against the socialization of medicine. The Bureau felt that each local county medical society should be the judge as to the value of such a campaign. It did not feel it had the funds nor did it feel that the campaign would be sufficiently effective to be carried out on a state-wide basis. The Bureau understands that the material was well prepared and that the medical profession needs the benefits of such a program against socialized medicine, and the Bureau would like to have an opinion from the officers of any counties where the campaign may have been carried on as to the effectiveness of this type of educational work.

#### IX. AVENUES OF PUBLICITY USED BY BUREAU

**1. Speaking engagements before lay and medical groups.** Although the county societies generally are more systematic in planning their programs for the entire year than formerly, whenever special emergencies arise they call upon the Bureau of Publicity and the Bureau is glad to cooperate in attempting to supply speakers. During the past year, speakers have been supplied by the Bureau for the following meetings:

1938

September 23—Cass County Medical Society, Logansport.

October 20—Liberty Commercial Club, Liberty.

October 27—Kiwanis Club, Warsaw.

November 28—Kiwanis Club, Frankfort.

December 7—Kiwanis Club, Muncie.

December 21—Parke-Vermillion County Medical Society, Clinton.

1939

January 17—Richmond Exchange Club, Richmond.

January 18—Tri-County Medical Society, Columbus.

January 18—Parke-Vermillion County Medical Society, Clinton.

February 15—Parke-Vermillion County Medical Society, Clinton.

March 6—Woman's Auxiliary to the Vigo County Medical Society, Terre Haute.

March 15—Parke-Vermillion County Medical Society, Clinton.

March 14—Fayette-Franklin County Medical Society, Connersville.

March 21—Kokomo Rotary Club, Kokomo.

March 28—Indiana University Club, Terre Haute.

March 30—Dearborn-Ohio County Medical Society, Aurora.

April 11—Kiwanis Club, Cambridge City.

April 18—Parent-Teacher Association, Terre Haute.

April 19—Parke-Vermillion County Medical Society, Clinton.

April 28—Miami County Medical Society, Peru.

May 17—Parke-Vermillion County Medical Society, Clinton.

June 14—Johnson County Medical Society, Franklin.

June 21—Parke-Vermillion County Medical Society, Clinton.

**2. Newspaper releases.** The following articles were released for publication since the last report of the Bureau:

Southern Indiana Postgraduate Medical Course.  
Annual Session of Indiana State Medical Association at Indianapolis (8 releases).

Secretaries' Conference.

Middletown Modernizes Medicine.

Are You Going to the Fair?

Health Hints for Hoosier Fishermen.

Health Exhibits at the Fairs.

These releases, totaling 386 at each mailing, were distributed as follows:

- (1) One to each councilor and the secretary of each county medical society.
- (2) Editors of 200 newspapers and magazines of the state received copies. Besides these, the articles often are carried in the *Hoosier Health Herald* of the Indiana Tuberculosis Association, and several other health publications of the state, including twelve religious, fraternal, and farm journals.
- (3) One to each secretary of each state medical association.

The Bureau of Publicity believes that it is now time for it to resume distribution and publication of the regular weekly releases as in past years. Suggestions as to material to be contained in these releases will be received gladly by the Bureau.

**3. Radio programs at time of state meeting.** Through the broadcasting facilities at Fort Wayne, arrangements have been made for a series of talks to be given over the air during the annual session by the Fort Wayne Medical Society. Talks of a scientific nature are to be given by the out-of-state guests appearing upon the program, while the talks by the physicians within Indiana will be limited to the officers of the state, district and local medical societies, and these officers will discuss general medical economic subjects rather than scientific subjects.

#### X. BUREAU ACTS AS ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

Some years ago the Bureau, through action of the House of Delegates, was made the advisory committee to the Woman's Auxiliary to the Indiana State Medical Association. Last year the Bureau recommended that the state association take action



recognizing the work of the Woman's Auxiliary, with the result that the House of Delegates at the Indianapolis meeting passed a resolution so recognizing the Woman's Auxiliary. The Bureau at this time wishes to express its appreciation of the farsighted action of the House of Delegates in officially recognizing the Woman's Auxiliary.

#### **XI. SUGGESTED RESOLUTION TO BE PRESENTED AT ANNUAL SESSION**

The following resolution, adopted by the Medical Society of New Jersey, in regard to radio broadcasts was brought to the attention of the Bureau:

"RESOLVED, That the Joint Committee on Professional Relations request the Medical Society of New Jersey and the New Jersey Pharmaceutical Association to enter a formal protest against the prescribing of medicines and the giving of medical advice on the radio, with the exception of such broadcasts on health matters as are given under the auspices of recognized associations of licensed physicians or Federal, State, and Local Health Departments; and be it further

"RESOLVED, That such protest be sent to the broadcasting companies and the Federal Communications Commission."

The Bureau recommends that a similar resolution be presented at the state meeting.

#### **XII. FINANCIAL STATEMENT OF THE BUREAU**

The expenditures of the Bureau from August 1, 1938, to August 1, 1939, follows:

Clippings .....	\$114.59
Postage .....	55.57
Stationery and mimeograph supplies.....	36.02
"Indiana Plan" .....	265.80
"Middletown Modernizes Medicine".....	517.02
Miscellaneous .....	5.20
Total expense .....	\$994.20

#### **XIII. CONCLUSION**

Several weeks ago the Bureau of Publicity supplied each county society with a copy of a pamphlet prepared by the Bureau of Medical Economics of the American Medical Association entitled, "Economics and the Ethics of Medicine." The Bureau suggests that each county medical society appoint someone to study this pamphlet and that this subject should be the basis of a discussion at one of the medical society meetings during the coming year. The necessity for the study of the Principles of Medical Ethics has been summed up by Dr. William N. Wishard, who has served as chairman of the Bureau of Publicity for so many years and as such has been a guide in Indiana in problems having to do with the broad phases of the relationship of doctors to the public and of doctors among themselves. In such clear, concise terms does Dr. Wishard speak upon this subject that other members of the Bureau are breaking a time-honored rule of more than fifteen years' standing that no individual member of the Bureau may be quoted, in quoting Dr. Wishard direct upon this subject:

"I am growing old and I won't have a chance to give you my views very long, but there is no

time when we should fail to emphasize the Principles of Medical Ethics. We should state these principles over and over again. Each year a new group of young men enter the practice of medicine. Some of them naturally are in financial difficulties and some few of them may be willing 'to take a chance' in regard to the principles of ethics. Hence, we should never fail, both upon behalf of these younger men and the men who are already established in practice to emphasize the controlling influence of medical ethics on medical practice which is our only guard upon behalf of the public against lowering medical standards."

Respectfully submitted,  
WILLIAM N. WISHARD, M.D., *Chairman*,  
F. M. GASTINEAU, M.D.,  
C. F. THOMPSON, M.D.

#### **COMMITTEE ON CIVIC AND INDUSTRIAL RELATIONS**

Dr. A. F. Knoefel, chairman, did not submit a formal report for the Committee on Civic and Industrial Relations, but the following letter was received from him:

"Relative to the work of the Committee on Civic and Industrial Relations, the past year has been most marked by inactivity, as no matters were presented for consideration. We had one case in which the correspondence continued for something like a year, but I see no reason for making mention of that.

"In view of the above situation I find no reason for a committee report. In past reports we have made mention of the desire of this committee to cooperate with the rank and file, but either our proffer was not presented properly or the doctors were not interested, I don't know which, but the fact remains that the benefit that this committee may offer has not been requested by the doctors.

"Very truly yours,

AUGUST F. KNOEFEL, M.D.,  
*Chairman of Committee on  
Civic and Industrial  
Relations."*

#### **COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS**

*House of Delegates,  
Indiana State Medical Association.*

Gentlemen:

##### **I Responsibility of Profession**

This committee was appointed by the president, Dr. E. M. Van Buskirk, in accordance with the action taken by the House of Delegates at the Indianapolis meeting in 1938.

Most of the members of the committee are familiar with the problems involved in graduate education. There seemed to be little necessity for

the committee to concern itself with undergraduate medical education in the state and its attention was directed toward developing a program of graduate education.

It is the feeling of members of this committee that graduate education in medicine is one of the responsibilities of organized medicine and is one of the problems of organized medicine that is seriously demanding special attention and research. The American Medical Association and the constituent state medical associations are all working assiduously on this problem, and methods applicable to one state would be entirely lacking in practical applicability to another state. The same may be said of certain sections of a given state. Methods that might seem practical and applicable in more populous counties in Indiana, for example, would be entirely impractical in the less populous and more isolated counties.

At the last meeting of the House of Delegates, serious consideration was given to the matter of employing an all time executive who would be responsible for the whole problem of developing graduate education in Indiana and act as an executive secretary to the Committee on Medical Education and Hospitals. This, as was pointed out at the last meeting of the House and discussed at some length, would entail a very material increase in the budget of the association. Your committee still feels that perhaps this additional expense would be justifiable. However, because of the lack of funds to proceed along this line, the committee attempted to experiment with other perhaps less expensive methods of procedure.

#### II Regional Center Activity

A most excellent suggestion came from Dr. James B. Maple of Sullivan to the chairman of the Council which was made the basis of some experimental work in the state this year in graduate education. The suggestion was that regional centers be established along the line of the organization at Muncie. At a meeting of the Committee on Medical Education and Hospitals held at Indianapolis, April 13, it was decided that the first of such centers be established in the southern part of the state, and that Evansville, because of its facilities, be chosen as an experimental center. It took considerable time to get the local county society and the various elements to functioning along the lines suggested, but finally a plan was worked out whereby a clinic will be held in Evansville each month. Each of the hospitals in Evansville will participate in this program and the clinics will be alternated among the various hospitals. The program got under way in August of this year.

Another experimental plan was that of a three day conference on "Obstetrics," which was held at Marion, Indiana, June 13, 14 and 15. This conference was most enthusiastically attended by the profession in Marion and vicinity. The enthusiasm was such that this group has now asked for an-

other conference to be given sometime during the late summer or fall on "Pediatrics."

#### III Needed—More Psychiatrists

During the year the matter of training in the various specialties has been referred to your committee for consideration, and several conferences have been held with the authorities of the University concerning this subject. The Council on Mental Hygiene of the State, and the Committee on Mental Health of the Indiana State Medical Association have referred to this committee the question of providing additional facilities for the training of psychiatrists in the State of Indiana to the extent, at least, that our own institutions might not have to obtain from other states well trained men to do this type of work. Your committee has conferred with the authorities of Indiana University on this subject. Thus far, this subject is still in the discussion stage.

#### IV Circuit Rider Courses

During the year your committee has given a great deal of time and study to various state programs of graduate education. The chairman of the committee attended a meeting of the Council on Medical Education and Hospitals of the American Medical Association in Chicago and a meeting of the Associated State Committees on Graduate Medical Education at the American Medical Association in St. Louis. During the meeting of the American Medical Association numerous discussions were held with various individuals interested in graduate medical education. It would seem that the so-called "circuit rider courses," such as were suggested last year to the House of Delegates are working effectively in the States of Tennessee and Oklahoma. There are certain other types of courses offered by the state medical associations. One in particular was a five year study program for graduates in medicine, offered by the California Medical Association, that merits serious consideration. It should be emphasized that any work in graduate medical education at this time is experimental and, as stated before, a type of program that would be applicable for one community would be entirely inadequate and perhaps impractical in another community, so that it is necessary to individualize the work in the various parts of the state.

There has just been established at Indiana University a new department of Postgraduate Education and Medical Economics which in the opinion of this committee will facilitate closer cooperation between the medical school and the state association in matters of postgraduate education. Already plans are being made to start an intensive course in pediatrics, diseases of the eye, heart disease and urology. These courses would be given during the summer months, and would last about two to four weeks. One of the primary aims will be to facilitate those interested in becoming qualified by their national board. The present annual postgraduate course will be continued.



As has already been reported by this committee (in the August issue of *THE JOURNAL*), the two weeks intensive obstetrical course at Indianapolis will be continued. During the past school year, over fifty physicians have received post graduate training in these courses, and already indications are that a greater demand will have to be met next year.

#### V Continuation Recommended

It is obvious that if an effective course of graduate education is to be carried on in the State of Indiana it is going to require a considerable amount of time on the part of the committee members and necessitate a considerable amount of travel. At the present time no arrangement has been made for defraying the expenses of committeemen for travel. It would seem that if individuals are going to be asked to leave their homes and leave their work to travel in the interest of the Indiana State Medical Association, they should be reimbursed for their traveling expenses.

Your committee believes that the present method of experimentation of various types of post-graduate instruction may well be continued for another year or two in the hope of finding a method or methods that would be practical for the entire state.

Respectfully submitted,  
HERMAN M. BAKER, M.D., *Chairman*,  
O. O. ALEXANDER, M.D.,  
C. J. CLARK, M.D.,  
RALPH W. ELSTON, M.D.,  
E. E. PADGETT, M.D.,  
MERRILL S. DAVIS, M.D.

### COMMITTEE ON PUBLIC RELATIONS

*House of Delegates,*

*Indiana State Medical Association:*

Gentlemen:

Throughout the year your Public Relations Committee has been ready to take up any task which might be assigned to it by the Executive Committee, the Council, or the House of Delegates of the Indiana State Medical Association.

By tradition, this committee was formed to function in a very specific capacity. We stand ready to serve the official groups of this organization whenever we are called upon to do so.

Respectfully submitted,  
W. P. GARSHWILER, M.D., *Chairman*,  
W. E. JENKINSON, M.D.,  
H. D. PYLE, M.D.,  
J. C. GLACKMAN, M.D.,  
S. T. MILLER, M.D.,  
H. P. GRAESSLE, M.D.,  
R. H. BEESON, M.D.

### EDITOR OF THE JOURNAL

*House of Delegates,*

*Indiana State Medical Association*

Gentlemen:

Again it becomes our pleasant duty to report to the House of Delegates as to the state of our *JOURNAL*.

The mailing list for *THE JOURNAL* for 1939 reached an all time high of 3,675 for one issue; of course, it must be understood that this occurred before the removal of the names of delinquent members and while the present list does not quite reach that figure, the average for the year will be higher than for any previous year.

The advertising income of *THE JOURNAL* for 1939 is, as usual, included in the report of the Executive Committee.

During the recent A. M. A. convention at St. Louis, we noted an exhibit of the various state journals, and spent quite some time about the exhibit, listening to the comments of doctors from various sections of the country. It pleased us very much to hear frequent favorable comment regarding *THE JOURNAL* of the Indiana State Medical Association.

During this year we have continued the plan of last year in regard to the furthering of the Indiana Plan and the topic-of-the-month feature. A few of the subjects covered in our special numbers of last year were repeated again during the current year because of the unusual interest manifested in them.

As members of the House of Delegates know, all departments of the Association operate on a budget plan, and this includes the expense account of *THE JOURNAL*. We consider this to be a very wise provision indeed; otherwise, at times the publication expenses would seem to be out of reason because, if we accepted all the good papers offered, a considerable number of extra pages would have to be added to nearly every issue of *THE JOURNAL*. For example, early this year we were offered some twelve or fourteen papers which had been presented before a medical society in which a group of Indiana doctors is interested, but we were unable to accept them because of the extra printing expense involved. Further, there had been a precedent in this matter, in that two wholly intrastate societies were advised, some few years ago, that it would be impossible to publish all papers presented at their annual meetings for the above reason.

During the past few months we have mailed letters to some five hundred members in which we have asked some questions about *THE JOURNAL*. In doing this, we were not seeking compliments; we wanted to know how the magazine is being accepted by the members. We asked for suggestions as to improvement and we have received several worthwhile suggestions. The number of answers received exceeded our expectations and, of all of

these replies, only two were vituperative—one from the northern end of the state and one from the south central section. We are planning a special article for the October JOURNAL in which we will undertake to publish an analysis of the answers to our questions.

For the past few months the headquarters staff has been informally discussing the advisability of making some change in the appearance of THE JOURNAL, and one thing that had been considered was moving the index to an inside page and leaving the front cover page free for a more decorative cover. However, scores of our members have advised us that the front page index is the first thing that they look for, and we are led to believe that it is well to leave it as it is.

Our members have indeed been generous in contributing to the pages of our JOURNAL. This year has been one of the very few when it was found unnecessary to solicit contributions for our scientific section except for the special articles in relation to the topics-of-the-month. Furthermore, we believe that the papers which now are coming to THE JOURNAL are of higher calibre than ever before.

We have occasion to look over fifty or more journals each month and we are honest in our belief that our Indiana journal is comparable to any other journal of similar character. We are sincere in our expression of gratitude to all those who have helped us in building up THE JOURNAL to its present high state, and we bespeak for a continuance of that assistance.

Again we say that THE JOURNAL is owned, operated, and published by the Indiana State Medical Association. It is in no wise an individual or group production.

We take this occasion to acknowledge the many little favors received from our printers and to thank them for the unusual high quality of their production.

Respectfully submitted,  
E. M. SHANKLIN, M.D., *Editor*.

## COMMITTEE ON NECROLOGY THE HISTORIAN

*House of Delegates,*

*Indiana State Medical Association.*

Gentlemen:

### NECROLOGY

There were 117 deaths this last year, which is the highest number of deaths recorded in the past four years. This list contains, among others, the names of Drs. C. P. Emerson, J. O. Parramore, C. C. Bassett, J. E. P. Holland, W. C. Sarber, and recorded the untimely death of J. S. Woolery.

There were two physicians who died at thirty-three, Drs. H. C. Pepper and J. S. Woolery, both dying violent deaths; Dr. Pepper died from gunshot wounds and Dr. Woolery from injuries received in an auto accident. There were two physicians who attained the age of ninety-three years, Dr. J. W.

Snider and Dr. Robert S. Taggart. Three physicians died in the thirties, two in the forties, twenty in the fifties, forty in the sixties, twenty-eight in the seventies, nineteen in the eighties and five in the nineties. More died in their sixty-second year than any other, next came the sixty-sixth year and the seventy-eighth year, which tied. The average attained age was 68.43 years compared with 62.66 years last year.

There were three women physicians and two colored physicians. One of these colored physicians was born in slavery and lived to be ninety-one years old, the other had served two terms as coroner's physician in Gary and had also been a member of the City Board of Health.

There were sixteen deaths in March, fourteen in November and February, thirteen in October, eleven in December, ten in both June and September, eight in January and April, six in July, four in May and three in August.

Fourteen were graduates of the Medical College of Indiana, thirteen were from the Indiana University School of Medicine, five were from the Central College of Physicians and Surgeons, Indianapolis, three were from Fort Wayne College of Medicine, two each from Indiana Medical College School of Medicine of Purdue University, Curtis Physio-Medical and the Physio-Medical College of Indiana, and one each from the Medical College of Evansville and the Indiana Eclectic Medical College. From schools out of the state, seven men were from the Kentucky School of Medicine and seven from the Eclectic Medical College of Cincinnati, six were from Rush, and five each from the Hospital College of Medicine, Louisville, and The Medical College of Ohio, the rest were from thirty-one other schools in the United States and one from Oxford University in England. Eleven had graduated from literary colleges before entering medical school. Two were licensed under state law and there were seven others whose records failed to show any medical school diplomas.

A study of medical society membership discloses that fifty-four were members of their county and state societies while sixty-three were not members of any medical society. Four of the fifty-four were honorary members of their county and state societies. Thirty-two were members of the A. M. A. and seventeen were Fellows of the A. M. A. Three were Fellows of the American College of Surgeons and one was a Fellow of the American College of Physicians. Seventeen were listed as retired. These figures require two comments. First, entirely too many men are allowed to drop their membership as they grow older. The secretaries of the county societies should make it their business to keep these men's names on the books. Second, men who have been active members of their societies throughout the years should be made honorary members at seventy-five years and the society should pay the necessary dues from then on. If this had been done forty-six



of these men would have been honorary members instead of four as recorded.

Seventeen of these men held hospital staff appointments, five had been or were medical school faculty members, three had served in the Spanish-American War, twenty-nine had served in the World War, seven were listed as past presidents of their county societies and one was president-elect of his society. One man was past president of the National Eclectic Medical Association and had been its secretary for thirty-five years. One physician, Dr. Emerson, was professor of medicine in Indiana University Medical School and author of numerous medical books. One physician was owner of a sanitarium, one a medical director of Sunnyside, tuberculosis sanitarium, one was the chief medical examiner of a life insurance company, and one was president of the New Castle Clinic; one had been a newspaper editor, five were presidents of banks and one a vice-president, while several were directors, one had been a township trustee, twelve had served on county boards of health, while seven had been on city boards of health; eight had been county coroners and one had been coroner's physician; one had been mayor of his city; several had served on school boards and city councils, one had been a member of the state legislature, one had been superintendent of a state sanitarium, one was a manufacturer, one was listed as the oldest member of the Masonic lodge in Indiana, one was noted as a breeder of fine Percheron horses, one was born a slave, and one died in prison.

Those limiting their practices to specialties were as follows: surgery, 1; industrial surgery, 1; ophthalmology, 1; ophthalmology, otology, laryngology and rhinology, 3; internal medicine, 3; and tuberculosis, 3.

The various conditions contributing to the cause of death are as follows: Those having to do with the cardio-vascular renal system show coronary occlusion, 12; coronary thrombosis, 11; coronary sclerosis, 3; coronary block, 1; coronary disease, 1; auricular fibrillation, 1; bundle branch block, 1; angina pectoris, 7; hypertension, 4; chronic hypertensive heart disease, 1; hypertensive cardiovascular disease, 1; arteriosclerotic heart disease, 1; cardiovascular renal disease, 1; endocarditis, 1; myocarditis, 8; chronic myocarditis, 11; myocardial degeneration, 1; acute bacterial endocarditis, 1; mitral stenosis, 2; mitral insufficiency, 1; organic heart disease, 1; cardiac failure, 1; congestive heart failure, 2; acute dilatation of the heart, 1; making a total of 75 conditions directly connected with the heart and there were actually 58 physicians to whose death these conditions contributed so that 49.5% of the deaths this year enter this class.

There were 13 deaths from cerebral hemorrhage; cerebral thrombosis, 1; cerebral embolism, 1; cerebral sclerosis, 1; arteriosclerosis, 11; ruptured abdominal aneurysm, 1; and pulmonary embolism, 1.

Other causes were:

Uremia, 2; nephritis, 4; chronic nephritis, 3; chronic glomerulonephritis, 1; cystitis, 1; pyelitis, 1, and prostate disease, 4.

Lobar pneumonia, 6; broncho-pneumonia, 7; hypostatic pneumonia, 2; influenza, 1; acute bronchitis, 1; bronchial asthma, 1; pulmonary hemorrhage, 1; pulmonary tuberculosis, 5; miliary tuberculosis, 1, and chronic pulmonary fibrosis, 1.

Esophageal diverticulum, 1; cirrhosis of the liver, 1; appendiceal abscess, 1; gangrenous appendix, 1; peritonitis, 1; acute general septicemia, 1; intestinal tuberculosis, 1; carcinoma of right jaw and cheek, 1; abdominal carcinomatosis, 1; carcinoma of the stomach, 4; carcinoma of the sigmoid, 1; epithelioma of the face, 1; melanotic sarcoma, 1; brain tumor, 1.

Diabetes mellitus, 2; Parkinson's disease, 1; general paralysis of the insane, 1; acute dementia, 1; paralysis, 1; general senility, 1; and infirmities of old age, 1.

Deaths from injuries: falls, 1; auto wrecks, 4, and gunshot wounds, 1. Suicides: overdose of narcotic, 1; gunshot wounds, 3.

#### HISTORY

Much material has now been collected concerning the history of the medical societies and medicine in the following counties: Bartholomew, Cass, Clay, Daviess-Martin, Delaware-Blackford, Dubois, Fayette, Hendricks, Jackson, Jefferson, Lawrence, Madison, Posey, Sullivan, Vanderburgh, Vigo, Wabash and Washington. Current events of medical importance over the state are being collected and filed. Secretaries of the various societies are urged to send newspaper reports of all events occurring in the state that are of medical interest. Again we are urging the county secretaries of the various counties not listed above to try to find some one in their membership who will be so good as to collect the history of their society and county and send it to me.

Respectfully submitted,

JAMES B. MAPLE, M.D.

#### COMMITTEE ON SECRETARIES' CONFERENCE

*House of Delegates,*

*Indiana State Medical Association.*

Gentlemen:

The annual meeting was held Sunday, January 22, 1939, at the Athletic Club, Indianapolis, Indiana. The attendance for the meeting was the largest ever, and 120 stayed for the dinner.

Drs. Walter E. Vest, of West Virginia; D. A. Covalt and L. G. Montgomery, of Muncie; Verne Harvey, Indianapolis, director State Board of Health; Norman Beatty and J. William Wright, of Indianapolis; J. Harvey Crowder, of Sullivan; E. M. Shanklin, of Hammond; E. M. Van Buskirk, of Fort Wayne; Karl Ruddell, of Indianapolis; Mr. F. K. Helsby, of Kansas City, Mo.; and Dr.

Carl F. Vohs, St. Louis, Mo., all addressed the conference on economic subjects that were and are very pertinent to the medical profession.

Dr. Shanklin introduced the new executive secretary of the Lake County Medical Society, Mr. R. W. Waterson.

Dr. Norton, of the Mental Health Committee, announced that Dr. Stevens, of the State Welfare Department, could not be present and that he thought the situation of mental hygiene clinics was well in hand.

Dr. E. E. Padgett made a short talk about the work of the State Cancer Committee.

It was moved, seconded, and carried unanimously, that Dr. J. Harvey Crowder's paper be published in THE JOURNAL of the Indiana State Medical Association.

At the dinner, the conference was honored by the presence of Lieut.-Governor Schricker and several members of the health committees of both the House of Representatives and the Senate.

Dr. Lawson was introduced as the oldest secretary in the state.

The chairman announced that on April 15, 1939, all the secretaries and presidents of county medical societies were invited to a dinner at the University Medical Center.

Dr. A. M. Mitchell was reelected chairman of the conference for another year.

Respectfully submitted,

A. M. MITCHELL, M.D., *Chairman*,  
R. L. HANE, M.D.,  
P. E. YUNKER, M.D.,  
JOHN PALM, M.D.,  
D. A. COVALT, M.D.,  
J. F. REILLY, M.D.

## VETERANS' AFFAIRS

*House of Delegates,*

*Indiana State Medical Association.*

Gentlemen:

The Committee on Veterans' Affairs has no special report to make.

The treatment of government veterans in government hospitals interlaces with state medicine so closely that we feel that it should be a part of the fight against state medicine.

The committee also would like to make notice of the death of one of our outstanding members, Dr. C. C. Bassett.

We also advocate a noon luncheon for ex-service M.D.'s during the state meeting.

Respectfully submitted,

C. C. CRAMPTON, M.D., *Chairman*,  
C. C. TUCKER, M.D.,  
M. F. DAUBENHEYER, M.D.,  
JAMES A. WORK, M.D.,  
H. C. WILLIAMS, M.D.

## PERMANENT STUDY COMMITTEE ON HEALTH INSURANCE AND NATIONAL MEDICAL SITUATION

*House of Delegates*

*Indiana State Medical Association*

Gentlemen:

### PREFACE

During the past year considerable thought has been given to the question of health insurance, not only as applied to group hospitalization plans, but also to means of supplying medical services at lowered costs. Your committee has attempted to keep abreast of the many and varied plans which have been proposed and attempted, and through meetings and discussions to formulate some recommendations which might prove of value in the handling of the situation as it exists in Indiana.

The agitation for new forms of distributing medical and hospital services has been going on for many years throughout the United States. Since the early part of this century, it is estimated that there have been some 4,000 surveys made by more than 30 national organizations and more than 55 individual investigators attempting to determine the number and nature of health deficiencies, the efficiency of and the extent to which public health activities were functioning, the cost of medical care and the innumerable methods of supplying such services. Since the publishing of the report of the Committee on the Costs of Medical Care, however, the agitation for new methods of caring for the sick has increased tremendously, and has borne fruit in the experimentations which we are witnessing in all parts of the country. So rapid and widespread has been this phase of medical practice that up to the present time no accurate or complete enumeration of these various plans of distributing medical services is available. Since the report of the National Health Survey made in 1935-1936, almost frantic efforts are witnessed in the providing of some new plan, local, state wide, or national, to provide for the care of the sick.

"It is known that there are in operation more than 75 group hospitalization plans, some 54 hospital insurance companies, about 20 flat rate hospital plans, at least 2,000 industrial medical care services, at least 500 medical and hospital benefit organizations, about 24 union sick benefit funds and fraternal plans operating on a nation wide basis, about 300 private group clinics, at least 300 college and university student health services and, in at least 20 states, an unknown number of plans designed to assist portions of low income farm families. Each of these plans must have the participation of the medical profession. In addition, the physicians themselves are operating more than 150 medical care plans and are considering the organization of about 120 more."\* In addition to all of this, it is increasingly evident that the national government intends to engage more actively in the

\* Leland, R. G.: *J. A. M. A.*, Vol. 112, No. 15, Pp. 1528-29.



control of the practice of medicine through programs pertaining to medical research, medical education, and the distribution of medical care.

#### National Medical Situation.

Of utmost importance to the future of medical practice was the introduction into the Senate of the United States of a bill, S1620, titled as the "National Health Act of 1939" and presented by Senator Wagner.

The purpose of this bill was "to provide for the general welfare by enabling the several states to make more adequate provision for public health, prevention and control of disease, maternal and child health services, construction and maintenance of needed hospitals and health centers, care of the sick, disability insurance, and training of personnel; to amend the Social Security Act; and for other purposes."

Your committee denounces this proposed bill as a definite step toward compulsory sickness insurance and socialization of the practice of medicine, of unwarranted assumption that medical services are at present inadequate and require governmental distribution and control, and that the indicated failure of the medical profession to cooperate in providing plans for the care of the sick in low income classes is unwarranted.

We further are opposed to the passage of this bill because of its authorization of expenditure of vast sums where the need has not been shown, its expansion of authority to the Children's Bureau, the United States Public Health Service and the Social Security Board where such expansion is not warranted, its increasing of federal and state authority over the distribution of immense sums, and its provision for construction of hospitals and health centers in spite of the fact that many now in operation are not completely utilized and further sets up the government in competitive hospital operation. The bill is the essence of vagueness "in the light of the vast sums of money to be dispensed and the great powers conferred on certain federal officers in the control of the spending, and particularly the decision as to which of the individual states shall benefit by the expenditures."

Your committee recommends active opposition to this measure by every member of the Association, through their representatives, through their families, their patients and by all legitimate means possible to prevent the passage of this Act in its present form. Your committee wishes to express its gratification of the outcome of the anti-trust indictment leveled against the American Medical Association. The throwing out of court of this suit not only vindicates the principles and practice for which our organization stands, but revives again our hopes and efforts for the progress of our profession.

#### Health Insurance.

Your committee has contacted responsible officers in medical organizations in every state and possession of the union by means of a questionnaire

designed to elicit information of value in formulating a plan to provide group hospitalization and perhaps medical care to persons in low income group classes. Thirty-eight states or possessions replied. Twenty-six indicated some plan of group hospitalization already in force. Of the fourteen not answering, it is known that eight of them have some plan for hospitalization in force or under consideration. Only eleven had some plan in operation for medical care.

Since the Indiana bill, which passed the legislature, authorizing non-profit group hospitalization plans, was vetoed by the governor, your committee met to discuss ways and means to provide such care in a manner which could be acceptable to the profession at large and to the State Insurance Commissioner.

Consideration was given to the following:

1. The organization of a mutual insurance company, placing on deposit with the State Insurance Department the sum of \$25,000 to be secured by assessment of the membership or other means to be determined.
2. To buy an old insurance charter which was considered still operative under the so-called grandfather clause.
3. To operate a paternal group organization under the clause permitting such groups to pay benefits up to \$100 a year.
4. To organize as a not-for-profit organization and file suit asking for a declaratory judgment on the theory that providing hospital service under a weekly or monthly program is not insurance.
- 5 To cooperate with a private casualty company having authority to do business in Indiana, to take over the financial and administrative end of the job, but leave the physicians in charge of the administration of the medical part of it.

In considering these plans, No. 1 was discarded because of its tendency to place the medical profession in the insurance business, together with all the liabilities and risks attendant upon such a venture.

No. 2 was set aside for the same reason.

No. 3 was considered inadequate to solve the present needs of the situation.

No. 4 was given consideration as a likely method of approach, but further inquiry has elicited the opinion that such a procedure would throw down the bars to all manner and sorts of organizations whose purposes could not be compatible with ours.

Finally, your committee recommended the adoption of a plan of hospital and medical care which embodied cooperation with an established insurance company to be hereafter selected, and further that any plan to be hereafter adopted should include such safeguards and adequate provisions as may be needed to protect alike the interests of all concerned. We further recommended that such contract should provide for direct payments through an assignment clause to those supplying services. We recognized the necessity that the services extended beneficiaries under such a policy should be

rendered by members in good standing of the Indiana State Medical Association and hospitals who have reputable ethical standing. We were not unaware that such a demand raised the possibility of criticism from certain sources, but for the successful operation of such a plan we believed it to be imperative. One committee member dissented in view with the final statement.

In the light of further events, particularly the criticism likely to follow were one insurance company so favored, we wish now to make the following recommendations:

1. Your committee recommends the adoption of a plan for hospital and medical care, which embodies cooperation with an established insurance company or companies to be hereafter approved, until such a time as passage of an enabling act will permit of formation of non-profit organizations.

2. That such a plan of procedure be worked out either by this committee, or by one appointed for this sole purpose, and that after all details have been combined and approved by this committee and the Executive Committee, that it be presented to all established insurance companies licensed to operate in Indiana in order that they may have the opportunity to underwrite the plan if they so desire.

3. That these insurance companies present their premium rates to cover the carrying of the plan, and that the Executive Committee acting with this committee be delegated full power to approve or reject any or all such proposals, and be further delegated the power to initiate any such program it deems advisable.

4. That provisions be established to safeguard the interests of all concerned.

5. That there shall be no limitation upon the privilege of any County Medical Society to adopt its own plan to serve its own local situation.

6. That this committee be directed to incorporate, in any plan presented for approval, a provision for direct payment to those rendering the services.

Respectfully submitted,

N. K. FORSTER, M.D., *Chairman*  
W. D. MCFADDEN, M.D.  
W. U. KENNEDY, M.D.  
A. C. YODER, M.D.  
ERNEST RUPEL, M.D.  
J. M. FLEMING, M.D.

## COMMITTEE ON HIGH SCHOOL ATHLETICS

*House of Delegates*

*Indiana State Medical Association*

Gentlemen:

This committee has observed repeatedly the benefits of control and we must continue to call attention

to the dangers inherent in unsupervised athletic activity. Town lot games and unsupervised leagues are definitely more dangerous to life and limb than contests regulated by the authority of the Indiana High School Athletic Association.

We believe that the cause of scientific medicine has been furthered by the cooperation of the Indiana State Medical Association and the Indiana High School Athletic Association during the past several years and that much progress has been made in the following ways:

(1) There has been increased attention to the health and physical fitness of athletes, primarily because the coaches are better trained in health matters and are more alert to this phase of their responsibility.

(2) School authorities are more cooperative in securing the proper health supervision for their athletes.

(3) Examinations by physicians are being made more thoroughly.

(4) Emphasis on physical fitness has been stressed more and more.

(5) Officiating has improved and equipment has been improved.

(6) Game rules, season and tournament schedules have been modified at times when the health or safety of contestants was involved.

It should be of general interest that commercial insurance companies are now selling insurance, at reasonable rates, which covers injuries in all inter-school athletic contests as well as injuries incurred during transportation and that a number of high schools in Indiana carry this type of insurance.

The participant in competitive athletics is benefited by his activity and many times an entire community is benefited by the coordinated effort of its boys and girls which is necessary in any organization with a winning spirit. In this connection, it is well to remember that athletic games are a part of the general program of physical education and recreation work. We feel that supervision should be made more generally available in the grade schools.

Your committee suggests that parents acquaint themselves with the lack of supervision that prevails in many athletic contests, such as bicycle races, so-called "kid" marathon contests, swimming events, and other games, promoted by non-school authorities.

Respectfully submitted,

W. D. LITTLE, M.D., *Chairman*  
O. H. BAKEMEIER, M.D.  
H. C. WADSWORTH, M.D.  
G. A. THOMAS, M.D.  
D. W. PARIS, M.D.  
J. E. MCMEEL, M.D.



## COMMITTEE ON MENTAL HEALTH

*House of Delegates,*

*Indiana State Medical Association.*

Gentlemen:

The Committee on Mental Health of the Indiana State Medical Association begs to make the following report of activities for the year 1938-1939.

During the year three formal meetings have been held. These meetings were largely concerned with a discussion of the establishment of psychiatric clinics throughout the state as proposed by Dr. George C. Stevens, Director of the Division of Medical Care of the Indiana Department of Public Welfare. This committee approved of Dr. Stevens' plans at a meeting held January 10, 1939. Later Dr. Stevens and the chairman of this committee presented the proposition to the Executive Committee which likewise gave its approval.

Two points which the committee has felt were most important in the establishment of these clinics are: (1) that they must be under medical supervision, and (2) that they shall serve the indigent only. In the exhaustive plans drawn up by Dr. Stevens these points are thoroughly covered: no clinic will be established without the approval of the county medical society and the county board of welfare. All cases seen in the clinics will be subjected to careful physical and neurological examinations, together with the necessary laboratory and x-ray studies. No cases will be received unless referred by the family physician and approved by the medical members of the local advisory council. With this set-up, the committee feels that the county medical societies should have a personal interest in these clinics, that all cases will be under competent medical supervision, and that the clinics will not be abused, at least to no greater extent than public clinics generally. At present ten clinics are functioning, serving fifty counties.

The Indianapolis Society of Neurology and Psychiatry has interested itself in these psychiatric clinics and plans are now under way with the Welfare Department to establish such a clinic under the sponsorship of this society to serve the Indianapolis area.

In March, 1939, the Department of Public Welfare appointed a Council on Mental Hygiene, composed of eleven members, of whom five are physicians, the other members being social workers and educators. The function of this council is to act as an advisory body to the Department of Public Welfare and to serve as a liaison group between that department and the State Medical Association. Plans for extensive educational programs have been discussed in council meetings but have not yet been formulated.

The state insane hospitals continue to be overcrowded and under-staffed; even with this handicap they are doing excellent work. Insulin, metra-

zol and other forms of modern treatment are utilized, consequently the patient turn-over has increased.

The need of a state psychiatric hospital, under the supervision of the medical department of Indiana University as the Public Welfare Department, has been brought to the attention of this committee. Such an institution for the treatment of acute and presumably curable mental cases, as well as certain of the psychoneuroses who require institutional care for proper rehabilitation, is most desirable and in the end would no doubt prove economical to the state as well as a great humanitarian project. At present, however, the prospects for such an institution in the near future are not very encouraging.

The psychiatric department of the Indianapolis City Hospital is still located in its half-basement quarters. It seems that a city the size of Indianapolis could certainly provide better housing facilities and equipment for the care of the mentally ill. At present it is impossible to segregate as to color, age, or type of disease, there are no provisions for outdoor exercise or recreation, and the wards are constantly overcrowded. This criticism is no reflection on the hospital management, the resident or visiting staff, as patients in this department are receiving the best possible care under present conditions.

At a meeting of this committee on July 5, 1939, Dr. Herman Baker, chairman of the Committee on Medical Education and Hospitals of the Indiana State Medical Association, reported that a recent meeting of the State Council on Mental Hygiene recommended that Indiana University and the Indiana State Medical Association take steps to see that more training is given in psychiatry in the Indiana University medical school. Dr. Max Bahr, head of the Department of Neuropsychiatry, Indiana University School of Medicine, feels that adequate training is being given medical students in this department, and that recent graduates are as well trained in this subject as any other. This criticism has probably grown out of the fact that it has often been necessary to go outside the State of Indiana to secure adequately trained men for this work. Neuropsychiatry is a highly specialized branch of medicine, and years of graduate training are necessary to qualify in this subject. As no post graduate school in neuropsychiatry is maintained by Indiana University, it is easy to understand how recent graduates interested in this work will seek their special study in institutions outside the state, and for various reasons accept positions in other localities. The committee has in mind a number of graduates from the Indiana University School of Medicine who, having received advanced training in other institutions, have distinguished themselves in neuropsychiatry but failed to return to Indiana. The committee feels that the basic course in neuropsychiatry as now given by the Indiana University School of Medi-

cine is satisfactory. This report was referred back to the Committee on Education.

At this same meeting a proposal by Mrs. W. B. Townsend to establish a private clinic in Indianapolis for "Child Guidance and Marital Relations" was considered. Approval for this clinic was given after several alterations in the original plans were made.

The committee feels that at last we are making a start in a long program in the care, treatment, and rehabilitation of the mentally inadequate. It means greater hospital and out-patient facilities, properly trained field workers, coordination and cooperation of all relief agencies, and education of the public to the importance of these measures.

LARUE D. CARTER, M.D., *Chairman*,  
A. M. DEARMOND, M.D.,  
L. P. HARSHMAN, M.D.,  
H. J. NORTON, M.D.,  
H. M. BAKER, M.D.,  
JOHN H. HARE, M.D.,  
MAX BAHR, M.D.,  
C. L. WILLIAMS, M.D.,  
E. ROGERS SMITH, M.D.

#### COMMITTEE ON STATE FAIR

(No report submitted.)

#### COMMITTEE ON PREVENTION OF TRAFFIC HAZARDS

*House of Delegates,*

*Indiana State Medical Association.*

Gentlemen:

It is the opinion of the committee on traffic hazards that any contribution which the medical profession may have for the solution of the problem of traffic hazards in Indiana can best be made through association with the Governor's Safety Council.

This council, under the leadership of Paul Hoffman, president of the Studebaker Corporation, is composed of representatives of professional, civic, and business organizations of the state, and was responsible for the safety legislation passed by the last legislature.

The chairman of the committee on traffic hazards was appointed a member of this council. He has consistently maintained that excessive speed is a major factor in fatal automobile accidents. The new traffic laws, while not establishing a minimum speed law, do provide for zoning of dangerous areas by the highway department, and limits the speed of buses and trucks to 50 m.p.h. and 45 m.p.h. respectively.

Respectfully submitted,

MURRAY N. HADLEY, M.D., *Chairman*,  
C. S. BLACK, M.D.,  
G. V. CRING, M.D.,  
D. C. MCCLELLAND, M.D.,  
JOHN W. PALM, M.D.

#### STATE BOARD OF HEALTH LIAISON COMMITTEE TO DEAL WITH THE SOCIAL SECURITY ACT

*House of Delegates,*

*Indiana State Medical Association*

Gentlemen:

This committee reports that throughout the year many meetings were held with various departments concerned with the activities of the Division of Maternal and Child Health of the Indiana State Board of Health.

The activities of the Division were all discussed freely with your committee. Many of the activities but lightly touch upon the interests of the medical profession. Apparently, every effort is being made to cooperate with the medical profession.

All records of the activities of the Bureau of Maternal and Child Health are available to any member of the medical profession in the office of Dr. H. B. Mettel, chief of the division.

Space and time do not permit a detailed account of these activities in this report. The following is an enumeration of the maternal and child health activities:

1. Advice and assistance in establishing pre-natal and post-partum clinics, operated by doctors.
2. Nursing service for home deliveries.
3. Child health conferences.
4. School health services by nurses.
5. Educational clinical consultation service in obstetrics and pediatrics.
6. Education on care of premature babies.
7. Public Health nursing activities.
8. Educational nutrition program.
9. Dental program.
10. Monthly bulletin.
11. Health Education: Bureau of Health and Physical Education.
12. Mental Hygiene program; transferred to the Public Welfare Department.
13. Licensing maternal homes and hospitals in cooperation with—
  - a. Indiana State Medical Association.
  - b. State Department of Public Welfare, Children's Department.
  - c. Indiana State Board of Health.
  - d. Indiana University, Department of Obstetrics.
  - e. Bureau of Sanitary Engineering and Housing.
  - f. Office of State Fire Marshal.
14. Licensing and Supervision of midwives.
15. Tabulation of detailed statistics on maternal and neo-natal mortality.

Respectfully submitted,

E. O. ASHER, M.D., *Chairman*,  
J. C. CARTER, M.D.,  
R. W. SHANKS, M.D.,  
H. O. BRUGGEMAN, M.D.,  
MILO K. MILLER, M.D.,  
J. T. OLIPHANT, M.D.



## SUB-COMMITTEE TO STUDY MATERNAL MORBIDITY AND MORTALITY RATES FOR INDIANA

*House of Delegates,  
Indiana State Medical Association.*

Gentlemen:

Your Committee is pleased to report that in compliance with a resolution passed by the Indiana State Medical Association in 1937, a study of maternal and fetal deaths in Indiana covering a twelve-month period was made. The results of this study were published in the May issue of *The Journal of the Indiana State Medical Association*. As the annual inventory reflects to the business man the weakness of his departments, so this study reflects the main sources of maternal and fetal deaths and the contributory factors leading thereto. Sepsis, abortion, hemorrhage, surgical intervention and toxemia, as in most obstetrical surveys, constitute the main sources of maternal loss, and prematurity, intra-partum trauma and asphyxia were the main causes of fetal death.

Up to this time the contributory factors of obstetric mortality in Indiana were unknown except as met by an individual or as they occurred in an institution. This survey presents these factors as they occur in Indiana and thus are the concern of every member of our Association engaged in the practice of obstetrics.

Comment on the analysis is withheld, as the statistics reveal the places for improvement.

We express our gratitude for the cooperation extended by the members of the Association, the Bureau of Maternal and Child Health of the Indiana State Board of Health, who financed the survey, and the Bureau of Vital Statistics of the Indiana State Board of Health.

We believe that a repetition of the census will show improvement in mortality rate and is justified.

Respectfully submitted,

HENRY F. BECKMAN, *Chairman*,  
JAMES C. CARTER, M.D.,  
VERNE K. HARVEY, M.D.

## LIAISON COMMITTEE WITH INDIANA CRIPPLED CHILDREN'S BUREAU

*House of Delegates,  
Indiana State Medical Association*

Gentlemen:

As chairman of the liaison committee, I wish to refer you to the excellent article by Dr. O. W. Greer in the July issue of *THE JOURNAL* which very concisely tells of the work of the crippled children's services and of the work of the liaison committee in attempting to coordinate this work so that it may meet with the approval of the members of the Indiana State Medical Association.

The committee met with Dr. Greer on May 4, 1939, with almost a full committee present. Dr.

Greer's plans for 1939-1940 were discussed freely by all members present. Arrangements have been made for establishing a new center for crippled children in Fort Wayne, Indiana. As time goes on and it seems advisable and possible, further centers may be established.

I. C. BARCLAY, M.D., *Chairman*,  
W. R. GLOCK, M.D.,  
P. S. JOHNSON, M.D.,  
J. H. WEINSTEIN, M.D.,  
J. H. GREEN, M.D.,  
L. A. ENSMINGER, M.D.,  
L. D. BELDEN, M.D.,  
R. L. SENSENICH, M.D.

## AUDITING COMMITTEE

*House of Delegates,  
Indiana State Medical Association.*

Gentlemen:

Your committee met at the Indiana National Bank on July 21, 1939, at which time the securities held by the association, both in the general fund and the medical defense fund, were examined and found to be in order as listed by the George S. Olive and Company, certified public accountants, in their annual report for the year ending December 31, 1938. (See report of the treasurer, page 495.) None of the association's holdings matured, and no additional investments have been made during the past year.

Your committee also examined the cash balances in The Indiana National Bank, The American National Bank, The Fletcher Trust Company, and The Bankers Trust Company, as shown by the check books, and all of these accounts were found to be in accord with the bank statements as of July 31, 1939. These accounts consist of the general headquarters office fund, the medical defense fund, THE JOURNAL fund, and the petty cash fund respectively.

Respectfully submitted,  
O. B. NORMAN, M.D., *Chairman*,  
W. F. HUGHES, M.D.,  
E. B. RINKER, M.D.,  
M. B. CATLETT, M.D.

## COMMITTEE ON CONTROL OF CANCER

*House of Delegates,  
Indiana State Medical Association.*

Gentlemen:

The objectives for the year have been two-fold. First, to serve in an advisory capacity and aid in the state organization of the Women's Field Army of the American Society for the Control of Cancer, whose headquarters are in New York City. Second, to carry out the recommendation of the 1938 committee and with the aid of the Women's Field Army to place a piece of cancer literature in each home and a brochure on cancer diagnosis and treatment in each physician's office in the state.

The committee greatly appreciates the cooperation given us by the president, Dr. E. M. Van Buskirk, and the headquarters staff, the editor of THE JOURNAL, the Bureau of Publicity which handled speaking engagements, the Indiana State Board of Health, the Indiana University School of Medicine, the district councilors, county secretaries, other state society committees, and Mrs. Isaac Born, State Commander of the Women's Field Army and her very able assistants.

In order to coordinate the activities of the various groups, the chairman of this committee also served as chairman of an executive committee for the Women's Field Army. This executive committee was made up of the chairman, four Indianapolis physicians (Drs. Chas. W. Myers, Thurman B. Rice, Richard C. Travis, and E. E. Padgett), the State Commander and first vice-commander of the Women's Field Army. The executive committee held weekly meetings during March and April and several called meetings during the remainder of the year.

Early in March a special letter was sent to each district councilor and each county secretary by the state committee, explaining in detail the organization and work of the Women's Field Army in the county unit, and urging active support and leadership for the movement. We have adhered to the principle that each meeting arranged by the Women's Field Army for the discussion of cancer must have the approval of the county medical society and, if possible, the speaker should be from the local group.

The committee urges that each county society adopt a cancer educational program for the coming year. This should be the direct responsibility of an individual physician or the cancer committee of the society, if one has been appointed. Special types of cancer may be made the object of a course of study by adult groups. A program of talks on cancer in the high schools and colleges may be the means of detecting early cancer or pre-cancerous conditions among the students' parents. The national society will provide material for this purpose if the instruction is supervised by members of the society and has the approval of the state committee.

The April campaign of the Women's Field Army for funds was most successful. That organization collected \$5,174.33. Of this amount 30%, or \$1,552.30, went to the national headquarters of the American Society for the Control of Cancer, in New York City. This left \$3,622.03 to carry on the Indiana work for another year. Mrs. Isaac Born, State Commander, and Dr. F. L. Rector, Field Representative of the central district, especially deserve our commendation for the splendid work in organizing the women of the state in this cause. It should be stressed that this money will be used for organization and educational work only. The W. F. A. is not sponsoring or paying for any clinical work.

The Cancer Control Committee arranged for an exhibit at the Indiana State Fair and in the Hall of Health at the annual meeting in Fort Wayne.

The committee regrets the loss of one of its members, Dr. E. H. Andrews, of Peru, in July, as the result of an automobile accident. An appropriate letter was sent to the family.

#### Statistics—1938—Indiana State Board of Health

Disease	Deaths	Money Collected	
		Rate per 100,000	to Combat the Disease
Infantile Paralysis .....	12	.3	\$ 14,500
Tuberculosis .....	1380	39.8	1,500,000
Cancer .....	3997	115.2	1,244

The following recommendations are submitted:

1. The appointment of an active cancer control committee in each county medical society.
2. This committee to assume leadership in cancer education in order that the patient may have the advantage of an early diagnosis and receive prompt and adequate treatment; also to cooperate with the county representative of the Women's Field Army in:

- A. The annual membership campaign.
- B. Providing speakers for county meetings.
- C. The distribution of literature.

3. We should strive to broaden lay interest in reducing the high mortality rate. At present the only way this can be done is by early diagnosis, and this is only possible if there is an educational program that extends into every home in the county. The public has been slow to learn from the medical profession the early signs of cancer in order that it may be treated while yet curable.

Respectfully submitted,

CHESTER A. STAYTON, M.D., *Chairman*,  
C. L. BODKIN, M.D.,  
ALAN R. CHAMBERS, M.D.,  
GEORGE F. SMITH, M.D.,  
W. R. CLEVELAND, M.D.

#### SYPHILIS CONTROL COMMITTEE

*House of Delegates.*

*Indiana State Medical Association*

Gentlemen:

The Syphilis Control Committee of the Indiana State Medical Association wishes to submit the following report for the year.

The committee has been in constant touch with the Indiana State Board of Health and its representative, Dr. Wendell C. Kelly, of the Bureau of Venereal Diseases. A special program has been conducted by the State Board of Health and the Federal Government in the Calumet region.

The following recommendations were approved by the committee and submitted to the executive committee of the Association:

RECOMMENDATION 1. That three communities be designated as test communities in which the reporting of cases be attempted. These communities were to be South Bend, Terre Haute, and a third or smaller community. South Bend and Terre Haute



were selected on account of the fact that a large number of cases of syphilis had already been found in these two communities through surveys. The third community was not named. In the two communities designated, it is the desire of the committee to try the reporting of cases by number. . . . An investigator will be assigned by the State to the local Board of Health. He will check from time to time with physicians to see whether or not their cases are under proper treatment. All details of this procedure were not worked out.

RECOMMENDATION II. The Syphilis Control Committee has repeatedly gone on record to the effect that the Laboratory of the State Board of Health should refuse to perform blood tests for industry. In the future this committee suggests that the State Board of Health refuse to run tests for commercial firms. This committee does not consider any firm or corporation to be medically indigent and protests against the running of tests for the employees as a group by the State Board of Health. Whenever the tests are being done at the instance of the individual, only those tests of such members of the group as are medically indigent shall be eligible for such tests.

RECOMMENDATION III. It is the consensus of the committee that it is unethical conduct on the part of any physician to send blood specimens to the state laboratory for examination from any patient or industry that can afford to pay for same.

Respectfully submitted,

F. R. NICHOLAS CARTER, M.D., *Chairman*,  
WEMPLE DODDS, M.D.,  
MINOR MILLER, M.D.,  
L. G. MONTGOMERY, M.D.,  
ERNEST O. NAY, M.D.,  
B. W. RHAMY, M.D.

## COMMITTEE ON OCCUPATIONAL DISEASES

*House of Delegates,*

*Indiana State Medical Association.*

Gentlemen:

Due to the fact that the law covering occupational diseases has been in effect such a short time, your committee finds it difficult at this time to make any definite statement of policies and recommendations to guide the medical profession in serving under this statute. In fact we feel that any recommendations necessarily would have to be based on actual experience gained from the law and to date we have not had sufficient facts or figures upon which to base suggestions.

During the year your committee has acquainted itself with such developments as have taken place in the administration of the law by the Industrial Board of Indiana. The annual report of the board on occupational diseases from July 1, 1937, to June 30, 1938, shows that 92 cases have come to the attention of the board. The largest number of these fall into the following categories: dermatitis

22; infection 18; unknown causes 17. Most of these cases come from handling, carrying and lifting duties in industry. The largest number of cases, a total of 27, have come from those employed in the automobile industry. When you consider these relatively few cases of occupational diseases with the 20,000 or more cases due to injuries which come before the commission, you can readily understand the reluctance of your committee to make any definite comments upon the situation at the present time.

The Council of Industrial Health of the American Medical Association, which was created only a little more than a year ago, is interested in compiling information about a number of aspects that have to do with industrial health. Your Committee urges all county medical societies to cooperate to the best of their ability in supplying information to Carl M. Peterson, M.D., secretary of the Council on Industrial Health of the American Medical Association, if he should call upon you.

Respectfully submitted,

F. W. CREGOR, M.D., *Chairman*  
JOHN W. HILBERT, M.D.  
GORDON W. BATMAN, M.D.  
BAYARD KEENEY, M.D.  
C. V. ROZELLE, M.D.  
THOMAS OBERLIN, M.D.  
A. N. FERGUSON, M.D.

## COMMITTEE TO STUDY CULTISTS AND IRREGULAR PRACTITIONERS

*House of Delegates,*

*Indiana State Medical Association.*

Gentlemen:

This is the second year of this Committee's existence. Based on information obtained by the Committee last year and on further information obtained by this group, the Committee submits the following report.

The problem of cultists and irregular practitioners is a very old one and a very large one. We emphasize that any program to deal intelligently with this problem will be essentially a long-range program, although it is true that certain activities may be carried out which would have immediate effects.

Cultists exist only because they are patronized. They receive part of this patronage through widespread ignorance among lay people of the difference in educational qualifications of doctors of medicine and others. Part of their patronage results from cases of illness which as yet medical science does not fully understand. And they receive part of their patronage because in some instances doctors of medicine do not practice medicine in accordance with its latest advancements.

This Committee feels that an organized program of education of the lay public in these matters is, perhaps, the most important way we can affect this

problem. Physicians themselves cannot often with grace point out the difference in educational qualifications to their patients except with those where a close relationship of confidence exists. In such instances, physicians should continuously spread the gospel of these truths. Content of school books and the curricula of public schools should be arranged so that students of the public schools would have definite information conveyed to them concerning the differences in educational qualifications existing between doctors of medicine and others. The imperative need for this is realized when a survey of graduates of our public schools reveals that these students, as well as the average adult layman, consider one "doctor" little different from another. The officials of the schools, as well as the lay public, should have emphasized to them that any one who assumes the serious responsibility of diagnosing and caring for those who are ill owes it to society, his patients, and himself to learn all that science knows about the healing art. This, obviously, requires the full course of study in a recognized medical school. To enter deliberately the practice of the healing art without such preparation is obviously dishonest and unjustifiable.

The rapid advancement of scientific knowledge in the past several years has created somewhat of a difficult situation for those practitioners graduating earlier. To keep up with the constantly advancing front of scientific knowledge has required a very considerable amount of application. Some of our members have fallen short of their obligation in this matter. This committee, therefore, urges continued efforts on the part of these men to better educate themselves and on the part of medical societies to promote postgraduate study. The expansion of such a program on the part of our state association should receive the encouragement of every one of us.

Physical therapy, which with psychotherapy is the principal mode of treatment employed by the cultists, deserves our more serious consideration. Our profession has inclined toward neglect of physical therapy in recent years. Our medical schools should be encouraged to give more emphasis to this matter in their curricula.

There are many vicious offenders among the cultists and irregular practitioners. Because of our familiarity with this matter, our moral responsibility to the public obliges us to seek out these worst offenders and stimulate the proper authorities to take appropriate action according to law. We feel that there is considerable confusion and lack of information on the part of the county societies concerning the matter of handling these offenders. This committee is sending to each county society a letter on this subject outlining suggestions as to the steps to take in handling these cases. In this connection we believe that the county societies should appeal to the office of our state association and through it to Mr. Albert Stump, our attorney, for further help and advice in any case.

The legal duty of prosecuting offenders of the medical practice act falls on the State Board of Medical Registration and Examination, usually. This board is handicapped in this activity by lack of an investigator to go from county to county to work up the cases in cooperation with the local prosecutors. The employment of such an investigator would be the most effective way to cope with these offenders. This board, however, is working under a great handicap because of lack of funds. According to the state law, its budget for any year cannot exceed its receipts for that year and its present receipts are no more sufficient than to meet clerical and board meeting expenses. Our profession should be interested in some way of increasing this board's revenue so that its function in these matters could be satisfactory.

Respectfully submitted,

ALFRED ELLISON, M.D., *Chairman*,  
A. J. LAUER, M.D.,  
C. L. BOYD, M.D.,  
A. P. HATTENDORF, M.D.,  
WILLIAM A. SHUCK, M.D.

## INDIANA INTER-PROFESSIONAL HEALTH COUNCIL

*House of Delegates.*

*Indiana State Medical Association.*

Gentlemen:

It will be recalled that the Indiana Inter-professional Health Council was organized at Purdue University on December 2, 1937, on the call of Dean C. B. Jordan. This House of Delegates entered into the organization by appointing a special committee to confer with Dean Jordan and other interested individuals. Since that initial meeting of the Council it has been perfected and the original membership has been enlarged and now includes the Indiana Dental, the Indiana Pharmaceutical, the Indiana Hospital, and the Indiana Nurses Associations representing the committee of five. Dean W. D. Gatch of the Indiana University School of Medicine, Dean B. D. Myers of the Bloomington portion of the Indiana University School of Medicine, Dean E. H. Niles of the Indianapolis College of Pharmacy, and Dr. Verne K. Harvey of the Indiana State Board of Health were invited to membership in this group. This type of individual participation should give liberal and constructive direction to the particular interests involved.

One of the purposes of this group is to further the public interest by close cooperation and collaboration in the formulation of legislation concerning health problems. During the last session of the legislature, owing to the failure on the part of some of these member groups to make full use of the facilities of the Council, legislation to promote matters of general health interest was hampered to a certain degree. It is possible that all desirable legislation might have been obtained without difficulty if the full facilities of the Council had



been utilized. With this in mind, Dean Jordan called the committees representing these various groups into conference on April 25 of this year. The purposes of this meeting were as follows:

1. To consider reports of the chairmen of standing committees.
2. To discuss future plans for the work of the Council.
3. To consider reports that should be made to the parent organization.

After considerable study and deliberation those present adopted six points as follows:

1. Secure the approval of their groups for the reorganization of the State Board of Health with the idea of keeping it out of politics.
2. Secure the approval of their groups for the purpose of getting behind a poison bill that will be agreeable to all.
3. That each group present its legislative program to the Council. In adopting this "clearing house technique" each group could make valuable contributions to whatever is to be considered. This would afford opportunity to avoid action objectionable to any member group.
4. That the State Council should be a clearing house for information through bulletins and association journals.
5. That the Legislative Committees of the various associations meet with the Committee of the State Council to discuss desirable and undesirable legislation and plan together for the future on matters of interest to all groups.
6. That the Legislative Committee of the Indiana Inter-professional Health Council be the unifying force behind such movements.

Your Committee submits these proposals with the recommendation that they receive approval.

Respectfully submitted,  
 F. S. CROCKETT, M.D., *Chairman*,  
 HERMAN G. MORGAN, M.D.,  
 Ex-officio members:  
 E. M. VANBUSKIRK, M.D.,  
 N. M. BEATTY, M.D.,  
 J. W. WRIGHT, M.D.,  
 M. A. AUSTIN, M.D.

## ANTI-TUBERCULOSIS COMMITTEE

*House of Delegates,*  
*Indiana State Medical Association*

Gentlemen:

The State Anti-Tuberculosis Committee was appointed for the first time by our president, Dr. Van Buskirk. The committee had several meetings and decided that their function should be to stimulate the interest of our profession in the tuberculosis problem. Letters were mailed to the president of each county medical society suggesting the appointment of a county tuberculosis committee. We are pleased to report that sixty-three county tuberculosis committees were appointed. It was also suggested that each county medical society

have at least one tuberculosis program yearly and the State Tuberculosis Committee offered its services in securing speakers and formulating such programs. A number of reprints of the symposium on "The Diagnosis and Treatment of Tuberculosis" which was published in the November JOURNAL were printed. These reprints were mailed to the members of the county tuberculosis committees and also to the officers of the county societies.

The increasing interest in the tuberculin tests in the schools with x-ray of the reactors makes it imperative that our society members understand such survey problems and the county tuberculosis committee should be in a position to supervise such work and cooperate with the county tuberculosis societies.

We regret to report that Dr. James Parramore, a member of our committee, passed on early this year. He was a highly qualified tuberculosis specialist and his death will be a great loss to his section of the state. Dr. Robert B. Sanderson, of South Bend, was appointed in his place.

Respectfully submitted,

JAMES H. STYGALL, M.D., *Chairman*,  
 J. V. PACE, M.D.,  
 R. B. SANDERSON, M.D.,  
 P. D. CRIMM, M.D.,  
 M. H. DRAPER, M.D.

## COMMITTEE ON CONSERVATION OF VISION

*House of Delegates,*  
*Indiana State Medical Association.*

Gentlemen:

The Committee on the Conservation of Vision of the Indiana State Medical Association appreciates the place that organized medicine can take in the prevention of blindness. Two-thirds to three-fourths of blindness is preventable, especially that caused by trachoma, syphilis, and ophthalmia neonatorum. With the use of sulfanilamide in trachoma, the advent of the syphilis campaign, and by strengthening our ophthalmia neonatorum prevention, we may anticipate during the next few years a great reduction in blindness.

In the October, 1938, issue of the THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION, the Department of Public Welfare outlined and commented on the causes of blindness among the blind assistance applications. The etiology of blindness among the blind pensioners revealed 30% from infectious diseases, trachoma 9.6%, syphilis 7.5%, ophthalmia neonatorum 2.5%. Traumatic and chemical injuries accounted for 8.9% of the blindness and much of this is preventable.

There is no lay organization or society for the prevention of blindness in Indiana such as exist in many other states. The Indiana State Medical Association, the Blind Assistance Division of the Department of Public Welfare, the state institutions for the blind, the Board of Industrial Aid

for the Blind, the Lions Club, the Department of Public Instruction, nursing organizations, hospitals and dispensaries are working for the same goal: the conservation of vision.

The general plan for the state conservation of vision program is:

1. Ophthalmia Neonatorum  
Prophylaxis—uniform  
Treatment—adequate
2. Syphilis  
Prevent, discover and thoroughly treat syphilis
3. Pre-school child's vision preserved  
Early detection of visual defects and correction  
Early recognition and correction of squint
4. School child vision preserved  
Universal and regular examination of vision and eyes in pre-school and school children  
Correct school lighting  
Urge sight-saving classes
5. Prevent eye accidents  
Safety for the public  
Safety for industry
6. Education  
Physician  
Public  
Nurses
7. Wipe out trachoma in Indiana.

An article was published in the June issue of THE JOURNAL outlining these recommendations. Each county secretary will be sent a letter in September asking that steps be taken to establish a local committee on the conservation of vision, which is to further the following program:

1. In the eyes of the new-born, immediate instillation of 1% silver nitrate (beeswax ampoules), 1 to 3 drops with irrigation following.
2. Treatment of squint or cross eyes as early as possible, preferably as early as three years of age.
3. Examination of all school children for visual defects and immediate treatment for all defects found.
4. Early detection and treatment for congenital and acquired syphilitic eye cases.
5. Examination and furnishing of necessary glasses to the medical indigent school children.
6. Encourage visual tests of preschool children. Examination of vision at time of general physical examination.
7. Early recognition and treatment of trachoma; 15% of the total blindness in children is caused by trachoma.
8. Children with corrected vision between 20/70 and 20/200 should be in sight-saving classes.
9. All school children with congested eyes should be referred to an oculist when possible.

The committee believes this program can be carried on through the school nurses in larger cities and through teachers and county superintendents in schools where no school nurses are employed.

During the past five years only a few ophthalmia neonatorum cases have been reported to the Indiana State Board of Health. However, 15% of the blind children in the state blind school are there as a result of this disease. The State Board of Health, in a recent questionnaire, sent out at the request of this committee to hospitals, reports that hospitals that replied reported a total of 147 cases of ophthalmia neonatorum and this only represents a portion of the total. Two and five-tenths percent of those on the blind pension roll, or a total of sixty-six cases, were blind from ophthalmia neonatorum.

Indiana has had an ophthalmia neonatorum law for years, but the Board of Health does not want to embark upon its enforcement unless the medical profession requests that it do so. As a result of the ineffectiveness of the prevention of this disease to date, the committee recommends to the House of Delegates, the following resolution regarding ophthalmia neonatorum:

#### RESOLUTION ON OPHTHALMIA NEONATORUM PREVENTION

*(To be presented to the House of Delegates at the Ninetieth Annual Session, Fort Wayne, October 10, 1939.)*

As it is recognized by the committee on the Conservation of Vision of the Indiana State Medical Association that a high incidence of ophthalmia neonatorum exists in Indiana, therefore,

BE IT RESOLVED, That the following recommendations, prepared by that committee, be adopted by the House of Delegates of the Indiana State Medical Association in order to reduce the incidence of this disease and so conserve vision of the citizens of our state:

- (1) That the question on the birth certificate "Were precautions taken against ophthalmia neonatorum" be changed to read, "What preventive for ophthalmia neonatorum did you use? If none, state the reason."
- (2) That legislation should be enacted specifying that only a prophylactic agent approved by the Indiana State Board of Health shall be used.
- (3) That one percent (1%) silver nitrate be used in beeswax ampoules as a universal prophylactic agent for ophthalmia neonatorum at this time, with the reservation that this recommendation may be changed in the future.
- (4) That the Indiana State Board of Health shall acquaint physicians, individuals and hospitals with this recommendation to see that it is uniformly easily available.
- (5) That the Indiana State Board of Health shall carry on a campaign of urging the prompt and early reporting of ophthalmia neonatorum as the law now specifies.



- (6) That the Indiana State Board of Health, through the local health officers, shall ask the prompt reporting of conjunctivitis of the new-born from whatever organism, and shall have jurisdiction over these cases, in investigating and insuring adequate diagnosis and treatment until they are definitely classified as not being ophthalmia neonatorum. That investigation should be a direct responsibility of the Indiana State Board of Health and assured thereby.
- (7) That consultation with oculists be urged in these cases whenever such consultation is available. That provision be made for expert ophthalmological and nursing care whenever necessary, and that these services be arranged without delay and be available also for similar emergency cases occurring at a later age, and

BE IT FURTHER RESOLVED, That if these recommendations are adopted by the House of Delegates, they shall be transmitted to the Indiana State Board of Health, that legislation be enacted at the next session of the general assembly to strengthen the present ophthalmia neonatorum law according to the above recommendations, and that the delegates of the Indiana State Medical Association to the American Medical Association at the meeting to be held in New York, June 10-14, 1940, be instructed to present a resolution embodying similar recommendations to be adopted by the states throughout the nation.

\* \* \*

The committee, realizing the widespread prevalence of trachoma in southern Indiana, its high incidence in the etiologic causes of blindness in Indiana, but also cognizant of the excellent program of the Blind Assistance Division of the Indiana Department of Public Welfare in its effort to eradicate this disease, recommends, because of its being a public health menace to our state, the following resolution to the Indiana State Board of Health, because it asks that it not be criticized for instituting such a program without a request from the Indiana State Medical Association as follows:

Realizing the prevalence of trachoma in Indiana and its high incidence in the causation of blindness,

BE IT RESOLVED, by the House of Delegates, That the State Board of Health of Indiana shall be requested by the Indiana State Medical Association to carry on an active campaign against this communicable disease to try to eradicate it from the state. The laws relative to trachoma should be enforced with quarantine where necessary, to see that it is adequately treated and cured if possible.

\* \* \*

Many states have lay organizations for the conservation of vision. Indiana is one of the few that has a committee of the state medical association that is devoted to that problem. In order to

insure a continuity of policy for such a committee over a period of years, the following recommendation is made:

Realizing the importance of a continuity of policy for certain committees,

BE IT RESOLVED, by the House of Delegates of the Indiana State Medical Association, That the Committee on Conservation of Vision shall be a five-year committee, the incoming president shall be asked to appoint five members of this committee, one for a period of five years, one for a period of four years, one for a period of three years, one for a period of two years, and one for a period of one year; succeeding presidents shall appoint one member of this committee each year, and receive suggestions regarding these appointments by the recommendations of the Indiana Academy of Ophthalmology and Otolaryngology and the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association.

\* \* \*

The committee is sponsoring an exhibit by the National Society for the Prevention of Blindness at the Indiana State Medical Association convention in Fort Wayne, to acquaint the profession with this problem and also conducting a part of an educational campaign for the public at the court house in Ft. Wayne while the convention is in progress. It has arranged with Dr. J. Warren Bell, medical director of the National Society for the Prevention of Blindness, to take part in the Health Officers' Conference program preceding the convention.

The committee realizes that the surface of this problem has just been scratched in its activity and hopes that the next five-year committee will be more capable to deal with the problem of conservation of vision.

Respectfully submitted,

J. V. CASSADY, M.D., *Chairman*,  
E. L. VAN BUSKIRK, M.D.,  
ORRIS T. ALLEN, M.D.,  
E. E. HOLLAND, M.D.,  
ROBERT J. MASTERS, M.D.

## THE PNEUMONIA COMMITTEE

*House of Delegates,*

*Indiana State Medical Association.*

Gentlemen:

The Pneumonia Committee recommends that considerable educational work for doctors on the management of pneumonia be undertaken in all parts of the state. The Pneumonia Committee further recommended that, in its judgment, all cases of pneumonia should, wherever possible, be treated in hospitals.

Following the educational program for the medical profession, it was decided that an intensive program of education for lay people be undertaken by the society.

Through cooperation with the Indiana State Board of Health, distribution centers for pneumonia serum have been set up, one being placed in each councilor district. The stations are located as follows:

Duke's Miami Hospital, Peru, Indiana.  
City Board of Health, Evansville, Indiana.  
St. Edward's Hospital, New Albany, Indiana.  
Methodist Hospital, Gary, Indiana.  
Bartholomew County Hospital, Columbus, Indiana.

Henry County Hospital, New Castle, Indiana.  
Methodist Hospital, Ft. Wayne, Indiana.  
Epworth Hospital, South Bend, Indiana.  
Ball Memorial Hospital, Muncie, Indiana.  
Union Hospital, Terre Haute, Indiana.  
Daviess County Hospital, Washington, Indiana.  
(Lafayette district being arranged.)

Each of these stations carry on hand the following types which are the most common: Type 1, 2, 3, 4, 5, 6, 7, 8, 14, 18, and 19.

The rarer types can be obtained on order from the State Board of Health where a twenty-four hour service is maintained.

The Board of Health is cooperating with previous recommendations of the committee in supplying questionnaire blanks to all physicians using the serum in order that the cases may be used for study.

A suggested method of fractional administration of this serum submitted by the committee is furnished to physicians and the State Board is furnishing ampules of sterile normal saline solution for use in the fractional dose administration.

Respectfully submitted,

C. J. CLARK, M.D., *Chairman*,  
PAUL CRIMM, M.D.,  
A. S. GIORDANO, M.D.,  
PAUL STIER, M.D.,  
W. C. MCFADDEN, M.D.,  
R. H. BAYLEY, M.D.,  
H. C. WADSWORTH, M.D.

## LIAISON COMMITTEE WITH THE INDIANA STATE DEPARTMENT OF PUBLIC WELFARE

*House of Delegates,*

*Indiana State Medical Association.*

Gentlemen:

This committee met once during the year on Sunday, June 11, with representatives of the Public Welfare Department. This meeting was reported in detail in the July issue of *THE JOURNAL*.

During the year little has developed to necessitate consultation of these two groups. However, should some of the legislation now pending before the national legislative bodies be enacted, this committee will be called upon to give a great deal of thought and a great deal of time toward the solu-

tion of the problems that will arise out of such legislation.

Respectfully submitted,

HERMAN M. BAKER, M.D.,  
KARL RUDELL, M.D.,  
C. A. NAFE, M.D.,  
R. L. SENSENICH, M.D.,  
C. J. CLARK, M.D.,  
I. C. BARCLAY, M.D.,  
E. O. ASHER, M.D.,  
L. D. CARTER, M.D.,  
DON F. CAMERON, M.D.,  
V. K. HARVEY, M.D.,  
E. M. VAN BUSKIRK, M.D., *Ex-officio*.

## DIRECTOR OF RESEARCH

*House of Delegates,*

*Indiana State Medical Association.*

Gentlemen:

The year has shown a rapidly increasing number of plans for providing hospital care on a pre-paid insurance basis and, as was to be expected, plans are coming out for medical care by similar methods. In practically all the proposed plans, the wording "non-profit" occurs, apparently for added respectability, for inherently every insurance plan must have a beneficial party who necessarily must make charges sufficient to meet overhead, costs of service, and be ready to sustain possible losses. No non-profit plan yet proposed makes provision for return of unexpended balances as is commonly done in part by standard insurance companies, and this should be the essence of a non-profit plan. The recent reports of cost experience are not bearing out the optimistic early statements. The general situation seems somewhat reminiscent of the hospital ticket associations which flourished for a time forty years ago and of the fraternal insurance societies whose meteoric rise, for a time, seemed to set aside the tried principles of private enterprise. There seems yet some question as to whether the entire movement is in response to a real need or if it be largely a question of hysterical propaganda made possible by continuing economic depression. If there is a real need, it has become apparent that the rates now used in the larger plans must be sharply increased or the benefits substantially reduced.

A survey of the whole history of schemes for providing medical care on demand, whether by governments or private or public associations, indicates that they rise and fall in accordance with economic conditions, that liberalization of medical supply is always a depression panacea. The average human, European or American, perversely looks upon his own ailments as of supreme importance to himself and secures, eventually, if at all possible, the form and source of medical care he personally deems safest. For a long time private companies have offered every advantage in provision for hospitalization and medical care that any new



plan has yet proposed. The persistent reiteration of demands for improvement of the plans in every European country, notably in England, indicates the inherent and inescapable difficulties of regimenting intimate personal matters such as individual illness; however, successful regimentation may act in establishing general and universal protective measures.

It becomes increasingly apparent that medical care provision is inherently connected with hospitalization plans. Such addition is being adopted or considered everywhere. With wide adoption, as seems indicated by mounting reports, regulation of services rendered by the hospital and by the physician is inevitable and necessary to solvency. The differences between these plans and the earlier phases of the German Krankenkassen are difficult to detect.

The rapidly growing Toronto scheme specifically limits medical selection to physicians applying for designation. These designated physicians are under definite control, for their conception of the amount of ordinary care for an individual is subject to disapproval and they may provide special care, surgery, etc., only after approval of a supervisor, called a consultant.

Several of the very large New York City unions, mostly C. I. O., are providing full medical and hospital care, but only from a designated panel of physicians, and with arbitrary and inadequate fee schedules.

A somewhat revolutionary viewpoint of basis for the extension of medical service is found in the definitions of "medical demand" and "medical needs." The theory of those who most vehemently propose government control is that many people are unaware of their needs and should be required to submit to all remedial measures known for whatever ailments some one in authority thinks they might have. The profession holds that by the somewhat slower processes of education, all desirable procedures will be demanded and furnished.

This new theory, openly and explicitly announced by those who drew up the National Health Program, is the foundation, corner stone, and super-structure of their whole movement. Upon its acceptance or rejection would seem to depend whether we have socialized medicine.

The masterly report of the Chicago Society, which has worked out the possible costs of implementing such a plan in Chicago, seems rather to favor it in spite of cost.

Their only proposal of attainment, however, seems to be an approval of a non-profit, state-wide medical care and hospitalization insurance scheme. In all of the proposed plans, no value apparently is assigned to changing economic conditions or to health-giving improvement of housing, of better foods and of better clothing. After all, the class most needing care, the medically indigent, and for whom an income limit has not yet been fixed, is hardly the class most reachable by insurance schemes.

The latest reports of morbidity and days lost by illness show continued increases in European countries and a continued decrease in the United States and Canada, even with our supposedly out-moded system.

Continuing survey of medical affairs abroad shows constant, if rather unavailing, efforts of the English profession to secure increases of remuneration and to lessen red tape.

The German and Austrian situation is frozen. The profession takes whatever is ordered, but as all classes and occupations are equally under regimented control, medical men are no worse off.

The French system nearly meets our basic requirements, or as nearly as is possible by any governmental scheme. It has the advantage of free choice, at least, among those willing to render service on a competitive fee basis. It works well in rural districts and badly in cities. It has a political background with inherent inequalities and unpredictable changes, so that no man in all France knows all the rules.

The medical profession will probably continue to carry the medical burden, possibly with some form of direct subvention, and if this does not fulfill the requirements of those who insist on supply of the unknown needs, as well as the normal demands for service, a pure form of governmental procurement and supply will be demanded by them in the name of a public who does not know what it is all about. Betterment of economic conditions will make most of the schemes and plans unnecessary.

Respectfully submitted,  
W. U. KENNEDY, M.D.

HAVE YOU MADE YOUR HOTEL  
RESERVATION FOR THE FORT WAYNE MEETING?

REMEMBER THE DATES  
OCTOBER 10, 11, 12, 1939

Hotels and Rates on Page 491.

## DELEGATES TO THE INDIANA STATE MEDICAL ASSOCIATION

FORT WAYNE, OCTOBER 10, 11 AND 12, 1939

<i>Delegates</i>	<i>Alternates</i>	<i>Delegates</i>	<i>Alternates</i>
<b>ADAMS</b>		<b>HARRISON</b>	
R. E. Daniels, Decatur	H. F. Zwick, Decatur	William E. Amy, Corydon	
<b>ALLEN (Ft. Wayne)</b>		<b>HENDRICKS</b>	
M. R. Lohman, Ft. Wayne	C. B. Parker, Ft. Wayne	O. T. Scamahorn, Pittsboro	A. N. Scudder, Brownsburg
Wm. C. Wright, Ft. Wayne	R. W. Elston, Ft. Wayne		
M. B. Catlett, Ft. Wayne	G. A. McDowell, Ft. Wayne	<b>HENRY</b>	
		W. M. Stout, Newcastle	W. S. Robertson, Spiceland
<b>BARTHOLOMEW</b>		<b>HOWARD</b>	
W. L. Green, Columbus	Lyman Overshiner, Columbus	R. E. McIndoo, Kokomo	W. H. Harrison, Kokomo
<b>BENTON</b>		<b>HUNTINGTON</b>	
W. H. Altier, Fowler	V. L. Turley, Fowler	A. M. Hasewinkle, Markle	G. M. Nie, Huntington
<b>BOONE</b>		<b>JACKSON</b>	
<b>CARROLL</b>		H. P. Graessle, Seymour	L. H. Osterman, Seymour
C. C. Crampton, Delphi	C. L. Wise, Camden	<b>JASPER-NEWTON</b>	
<b>CASS</b>		<b>JAY</b>	
<b>CLARK</b>		John Lansford, Red Key	B. M. Taylor, Portland
<b>CLAY</b>		<b>JEFFERSON</b>	
Harry H. Ward, Coalmont	J. W. Van Sandt, Carbon	S. A. Whitsitt, Madison	E. C. Totten, Madison
<b>CLINTON</b>		<b>JENNINGS</b>	
M. F. Boulden, Frankfort	R. A. Hedgcock, Frankfort	D. W. Matthews, North Vernon	W. L. Grossman, North Vernon
<b>CRAWFORD</b>		<b>JOHNSON</b>	
<b>DAVIESS-MARTIN</b>		Oran Province, Franklin	Harry Murphy, Franklin
S. L. McPherson, Washington	C. P. Fox, Washington	<b>KNOX</b>	
<b>DEARBORN-OHIO</b>		J. F. Reilly, Vincennes	R. B. Cochran, Vincennes
W. J. Fagaly, Lawrenceburg	C. F. Fletcher, Sunman	<b>KOSCIUSKO</b>	
<b>DECATUR</b>		E. W. Thomas, Leesburg	C. E. Thomas, Leesburg
J. T. Morrison, Greensburg	I. M. Sanders, Greensburg	<b>LaGRANGE</b>	
<b>DeKALB</b>		W. O. Hildebrand, Topeka	Harry Irwin, LaGrange
<b>DELAWARE-BLACKFORD</b>		<b>LAKE</b>	
Clay A. Ball, Muncie	Forrest Kirshman, Muncie	P. Q. Row, Hammond	C. C. Brink, Gary
<b>DUBOIS</b>		T. W. Oberlin, Hammond	F. A. Malmstone, Griffith
H. C. Knapp, Huntingburg	G. A. Held, Holland	C. M. Jones, Whiting	W. H. Howard, Hammond
<b>ELKHART</b>		E. L. Schaible, Gary	J. P. Vye, Gary
A. C. Yoder, Goshen	R. A. Fleetwood, Nappanee	<b>LaPORTE</b>	
<b>FAYETTE-FRANKLIN</b>		Jon Kelly, LaPorte	J. R. Phillips, Michigan City
H. C. Metcalf, Connersville	A. F. Gregg, Connersville	<b>LAWRENCE</b>	
<b>FLOYD</b>		C. B. Emery, Bedford	R. B. Smallwood, Bedford
P. H. Schoen, New Albany	C. E. Briscoe, New Albany	<b>MADISON</b>	
<b>FOUNTAIN-WARREN</b>		E. M. Conrad, Anderson	C. V. Rozelle, Anderson
Simeon Lambright, Covington	L. J. Maris, Attica	<b>MARION (Indianapolis)</b>	
<b>FULTON</b>		C. H. McCaskey, Indianapolis	R. J. Masters, Indianapolis
A. E. Stinson, Rochester		O. W. Sicks, Indianapolis	O. B. Norman, Indianapolis
<b>GIBSON</b>		Ralph Lochry, Indianapolis	James Stygall, Indianapolis
Carl M. Clark, Oakland City	O. T. Brazelton, Princeton	Frank M. Gastineau, Indpls.	Clyde Culbertson, Indianapolis
<b>GRANT</b>		W. P. Morton, Indianapolis	Emmett Lamb, Indianapolis
R. W. Lavengood, Marion	L. D. Holliday, Fairmount	J. O. Ritchey, Indianapolis	R. H. Moser, Indianapolis
<b>GREENE</b>		E. O. Asher, New Augusta	F. B. Ramsey, Indianapolis
M. S. Mount, Bloomfield	K. L. Hull, Bloomfield	L. L. Shuler, Indianapolis	J. B. Stalker, Indianapolis
<b>HAMILTON</b>		M. J. Spencer, Indianapolis	David H. Sluss, Indianapolis
<b>HANCOCK</b>		C. F. Thompson, Indianapolis	R. V. Myers, Indianapolis
J. E. Ferrell, Fortville	C. H. Bruner, Greenfield	R. C. Beeler, Indianapolis	H. J. Weil, Indianapolis
		J. F. Balch, Indianapolis	C. H. Jinks, Indianapolis



Delegates		Alternates		Delegates		Alternates	
<b>MARSHALL MIAMI</b>				<b>SCOTT SHELBY</b>			
C. R. Herd, Peru		Fred Mallott, Converse		B. G. Keeney, Shelbyville		R. W. Gehres, Shelbyville	
<b>MONROE</b>				<b>SPENCER</b>			
W. C. Reed, Bloomington		Neal Baxter, Bloomington		J. C. Glackman, Rockport		V. V. Schriefer, St. Meinrad	
<b>MONTGOMERY</b>				<b>STARKE STEUBEN</b>			
T. Z. Ball, Crawfordsville		G. A. Collett, Crawfordsville		W. F. Waller, Angola		W. H. Lane, Angola	
<b>MORGAN</b>				<b>SULLIVAN</b>			
M. G. Murphy, Morgantown		Harvey White, Martinsville		J. T. Oliphant, Farmersburg		J. H. Crowder, Sullivan	
<b>NOBLE</b>				<b>SWITZERLAND</b>			
W. F. Carver, Albion		C. E. Munk, Kendallville		George W. Copeland, Vevay		George Ellerbrook, Vevay	
<b>ORANGE</b>				<b>TIPPECANOE</b>			
George Dillinger, French Lick		Ivan Clark, Paoli		Earl Van Reed, Lafayette		R. R. Calvert, Lafayette	
<b>OWEN</b>				Gordon A. Thomas, Lafayette		O. L. McCay, Romney	
R. H. Pierson, Spencer		M. S. Brown, Spencer		<b>TIPTON</b>			
<b>PARKE-VERMILLION</b>				S. M. Cotton, Goldsmith		B. A. Burkhardt, Tipton	
W. D. Gerrish, Clinton		<b>PERRY</b>		<b>VANDERBURGH</b>			
B. V. Lally, Tell City		F. C. Glenn, Tell City		Robert R. Acre, Evansville		W. L. Daves, Evansville	
<b>PIKE</b>				Minor Miller, Evansville		Stanton Bryan, Evansville	
L. M. McNaughton, Petersburg		G. B. DeTar, Winslow		Philip E. Yunker, Evansville		Clarence S. Baker, Evansville	
<b>PORTER</b>				<b>VIGO</b>			
P. M. Corboy, Valparaiso		J. W. Dale, Chesterton		O. R. Spigler, Terre Haute		A. W. Cavins, Terre Haute	
<b>POSEY</b>				R. G. Harkness, Terre Haute		E. O. Nay, Terre Haute	
J. R. Ranes, Mt. Vernon		F. W. Oliphant, Mt. Vernon		<b>WABASH</b>			
<b>PULASKI PUTNAM</b>				O. G. Brubaker, No. Manchester		L. E. Jewett, Wabash	
G. D. Rhea, Greencastle		Dick Steele, Roachdale		<b>WARRICK WASHINGTON WAYNE-UNION</b>			
John Robison, Winchester		Fred McK. Ruby, Union City		Will Thompson, Liberty		Harry P. Ross, Richmond	
<b>RIPLEY RUSH</b>				Max M. Gitlin, Bluffton		A. C. Nickel, Bluffton	
Robert D. Spindler, Milroy		C. C. Atkins, Rushville		<b>WHITE WHITLEY</b>			
<b>ST. JOSEPH</b>				Paul Garber, South Whitley		O. F. Lehmborg, Columbia City	
Erwin Blackburn, South Bend		George Rosenheimer, So. Bend					
A. S. Giordano, South Bend		Alfred Ellison, South Bend					
M. D. Wygant, Mishawaka		C. E. Savery, South Bend					

LIST OF PRESIDENTS OF THE INDIANA STATE

MEDICAL ASSOCIATION SINCE ITS

ORGANIZATION

Name and Residence		Elected	Served	Name and Residence		Elected	Served
*Livingston Dunap, Indianapolis.....		1849	1849	*Talbot Bullard, Indianapolis.....		1857	1858
*William T. S. Cornett, Versailles.....		1849	1850	*Nathan Johnson, Cambridge City.....		1858	1859
*Asahel Clapp, New Albany.....		1850	1851	*David Hutchinson, Mooresville.....		1859	1860
*George W. Mears, Indianapolis.....		1851	1852	*Benjamin S. Woodworth, Fort Wayne.....		1860	1861
*Jeremiah H. Brower, Lawrenceburg.....		1852	1853	*Theophilus Parvin, Indianapolis.....		1861	1862
*Elizur H. Deming, Lafayette.....		1853	1854	*James F. Hibberd, Richmond.....		1862	1863
*Madison J. Bray, Evansville.....		1854	1855	*John Sloan, New Albany.....		1863	1864
*William Lomax, Marion.....		1855	1856	*John Moffett (acting), Rushville.....		1864	1864
*Daniel Meeker, LaPorte.....		1856	1857	*Samuel M. Linton, Columbus.....		1864	1864
				*Myron H. Harding, Lawrenceburg.....		1865	1865
				*Wilson Lockhart (acting), Danville.....		1865	1866

\* Deceased.

<i>Name and Residence</i>	<i>Elected</i>	<i>Served</i>
*Vierling Kersey, Richmond.....	1866	1867
*John S. Bobbs, Indianapolis.....	1867	1868
*Nathaniel Field, Jeffersonville.....	1868	1869
*George Sutton, Aurora.....	1869	1870
*Robert M. Todd, Indianapolis.....	1870	1871
*Henry P. Ayres, Fort Wayne.....	1871	1872
*Joel Pennington, Milton.....	1872	1873
*Isaac Casselberry, Evansville.....	1873	1874
*Wilson Hobbs, Knightstown.....	1873	1874
*Richard E. Haughton, Richmond.....	1874	1875
*John H. Helm, Peru.....	1875	1876
*Samuel S. Boyd, Dublin.....	1876	1877
*Luther D. Waterman, Indianapolis.....	1877	1878
*Louis Humphreys, South Bend.....	1878	—
*Benj. Newland (acting), Bedford (v.-p.).....	1878	1879
*Jacob R. Weist, Richmond.....	1879	1880
*Thomas B. Harvey, Indianapolis.....	1880	1881
*Marshall Sexton, Rushville.....	1881	1882
*William H. Bell, Logansport.....	1882	1883
*Samuel E. Munford, Princeton.....	1883	1884
*James H. Woodburn, Indianapolis.....	1884	1885
*James S. Gregg, Fort Wayne.....	1885	1886
*General W. H. Kemper, Muncie.....	1886	1887
*Samuel H. Charlton, Seymour.....	1887	1888
*William H. Wishard, Indianapolis.....	1888	1889
*James D. Gatch, Lawrenceburg.....	1889	1890
*Gonsolvo C. Smythe, Greencastle.....	1890	1891
*Edwin Walker, Evansville.....	1891	1892
*George F. Beasley, Lafayette.....	1892	1893
*Charles A. Daugherty, South Bend.....	1893	1894
*Elijah S. Elder, Indianapolis.....	1894	1895
Charles S. Bond, (acting), Richmond.....	1894	1895
*Miles F. Porter, Fort Wayne.....	1895	1896
*James H. Ford, Wabash.....	1896	1897
William N. Wishard, Indianapolis.....	1897	1898
*John C. Sexton, Rushville.....	1898	1899
*Walker Schell, Terre Haute.....	1899	1900
*George W. McCaskey, Fort Wayne.....	1900	1901
*Alembert W. Brayton, Indianapolis.....	1901	1902
John B. Berteling, South Bend.....	1902	1903
*Jonas Stewart, Anderson.....	1903	1904
*George T. MacCoy, Columbus.....	1904	1905
*George H. Grant, Richmond.....	1905	1906
*George J. Cook, Indianapolis.....	1906	1907
*David C. Peyton, Jeffersonville.....	1907	1908
*George D. Kahlo, French Lick.....	1908	1909
*Thomas C. Kennedy, Shelbyville.....	1909	1910
*Frederic C. Heath, Indianapolis.....	1910	1911
*William F. Howat, Hammond.....	1911	1912
*A. C. Kimberlin, Indianapolis.....	1912	1913
*John P. Salb, Jasper.....	1913	1914
*Frank B. Wynn, Indianapolis.....	1914	1915
*George F. Keiper, Lafayette.....	1915	1916
*John H. Oliver, Indianapolis.....	1916	1917
Joseph Rilus Eastman, Indianapolis.....	1917	1918
William H. Stemm, North Vernon.....	1918	1919
Charles H. McCully, Logansport.....	1919	1920
*David Ross, Indianapolis.....	1920	1921
William R. Davidson, Evansville.....	1921	1922
*Charles H. Good, Huntington.....	1922	1923
*Samuel E. Earp, Indianapolis.....	1923	1924
E. M. Shanklin, Hammond.....	1924	1925
C. N. Combs, Terre Haute.....	1925	1926
Frank W. Cregor, Indianapolis.....	1926	1927
George R. Daniels, Marion.....	1926	1928
Charles E. Gillespie, Seymour.....	1927	1929
Angus C. McDonald, Warsaw.....	1928	1930
Alois B. Graham, Indianapolis.....	1929	1931
Franklin Smith Crockett, Lafayette.....	1930	1932
Joseph H. Weinstein, Terre Haute.....	1931	1933
Everett E. Padgett, Indianapolis.....	1932	1934
*Walter J. Leach, New Albany.....	1933	1935
Roscoe L. Sensenich, South Bend.....	1934	1936
*Edmund Dougan Clark, Indianapolis.....	1935	1937
Herman M. Baker, Evansville.....	1936	1938
Edmund M. Van Buskirk, Fort Wayne.....	1937	1939

\* Deceased.

## Exhibitors

### Booth No.

1-2	General Electric X-Ray Corp., Chicago
3-4	Mead Johnson & Co., Evansville, Ind.
7	A. W. Cotton Co., Bluffton, Ind.
8	Picker X-Ray Corp., New York
9	Mellin's Food Company, Boston
10	Wayne Pharmacal Supply Co., Fort Wayne, Ind.
11	Lederle Laboratories, Inc., New York
12	White Laboratories, Newark, N. J.
13	Akron Surgical House, Inc., Indianapolis
14	Luzier's, Inc., Kansas City, Mo.
15	U. S. Standard Products Co., Woodworth, Wis.
16	Horlick's Malted Milk Corp., Racine, Wis.
17	Petrolagar Laboratories, Inc., Chicago
18	The Medical Protective Co., Wheaton, Ill.
19	E. R. Squibb and Sons, New York
20	R. B. Davis Company, Hoboken, New Jersey
21	W. B. Saunders Co., Philadelphia
22	Eli Lilly & Co., Indianapolis
23-24	Pitman-Moore Co., Indianapolis
25	Gerber Products Co., Fremont, Mich.
26	Smith, Kline & French Labs., Philadelphia
27	Liebel-Flarsheim Co., Cincinnati
28	Dick X-Ray Company, St. Louis
29	Philip Morris & Co., Ltd., New York
30	Sharp & Dohme, Inc., Philadelphia
31 & 43	Pet Milk Sales Corp., St. Louis
34	The Jones Surgical Supply Co., Cleveland
35	John Wyeth & Brother, Inc., Philadelphia
36	Bard-Parker Co., Inc., Danbury, Conn.
37	Stokely Brothers & Co., Inc., Indianapolis
40	Fort Wayne Optical Co., Fort Wayne
41	National Live Stock and Meat Board, Chicago
42	A. S. Aloe Company, St. Louis

### Booths 1 and 2

#### GENERAL ELECTRIC X-RAY CORPORATION Chicago, Ill.

General Electric X-Ray Corporation will exhibit the newest developments in electromedical and x-ray equipment of interest to the medical profession.

\* \* \*

### Booths 3 and 4

#### MEAD JOHNSON & COMPANY Evansville, Ind.

THREE NEW MEAD PRODUCTS are on display at Mead Johnson & Company's booths: Mead's Thiamin Chloride Tablets; Mead's Cevitamic Acid Tablets; Mead's Nicotinic Acid Tablets. Olac for feeding prematures is also shown, as well as the complete line of Mead's Infant Diet Materials.

\* \* \*

### Booth 7

#### A. W. COTTON CO., Inc. Bluffton, Ind.

Representatives: Mr. G. R. Miller, Mr. George Brandon and Mr. C. A. Lucas.

This outstanding manufacturer of physicians' and surgeons' treatment room and office furniture will have on display a sufficient number of items to convey to every visitor to this booth some idea of the extent of research made by physicians' and surgeons' and skilled mechanical craftsmen before these products were ready for market.



Sold throughout the country during the past six years, the utmost satisfaction these products have given, were fully realized by physicians and surgeons only after they were put to actual use in practice. In addition, they unfailingly command the patient's admiration and promote confidence.

Every piece of equipment sold is specifically guaranteed to be FREE of faulty workmanship and material defects, barring external damage while in use; it will retain its original beauty and utility during many years of hard usage.

Illustrated catalogs will be distributed at the booth.

\* \* \*

#### **Booth 8**

### **PICKER X-RAY CORPORATION**

**New York**

Picker X-Ray corporation will show one of their self-contained shockproof x-ray units. The CENTURY is designed for vertical and horizontal radiography and fluoroscopy in various positions, from the vertical to the Trendelenberg. Capacity is 100 ma at 100 KvP. The table may be hand or motor operated.

Another interesting item which will be shown by Picker-Waite is a combination portable and mobile shockproof x-ray unit. The tube head and control may be removed for portable work or used in conjunction with a mobile stand for general office use.

\* \* \*

#### **Booth 9**

### **MELLIN'S FOOD COMPANY**

**Boston**

Opportunity will be offered for a discussion of the application of Mellin's Food in the feeding of infants whose individual condition sets them apart from so-called normal babies, and whose diet needs to be adjusted in a manner calculated to correct this digestive disturbance. Mellin's Food is worthy of attention for it has occupied an outstanding position in the field of pediatrics ever since the beginning of the study of the art or science of infant feeding.

\* \* \*

#### **Booth 11**

### **LEDERLE LABORATORIES**

**New York**

Lederle Laboratories, Inc., will again display all types of specific Antipneumococcic Seras as well as Sulfapyridine, the new chemical aid in the treatment of pneumonias. Sulfapyridine is being marketed in both tablet and capsule form. Globulin Modified Antitoxins, Scarlet Fever products, and a complete Allergy line will be presented. A cordial invitation is extended to all physicians to visit the Lederle Booth—both F. J. Caverly and H. J. Carwin, Indiana representatives will be in attendance.

\* \* \*

#### **Booth 12**

### **WHITE LABORATORIES, INC.**

**Newark, New Jersey**

White's Cod Liver Oil Concentrate will be presented in Booth No. 12 for your consideration. Here you may obtain complete information concerning the entire field of cod liver oil concentration, with clinical data substantiating the efficacy of White's Liquid, Tablet and Capsule Concentrates and of cod liver oil per se.

Qualified representatives and descriptive literature, including reprints and excerpts from medical literature, will further demonstrate cod liver oil efficacy and direct attention to the contributions of White Laboratories in the Vitamin A and D field.

White Laboratories holds an established place as one of the world's most extensive users of cod liver oil for pharmaceutical purposes and is the world's largest manufacturer of cod liver oil concentrates.

All physicians are cordially invited to visit the booth.

#### **Booth 13**

### **AKRON SURGICAL HOUSE, INC.**

**Indianapolis**

Specialties of several manufacturers will be shown by the Akron Surgical House in their booth. Samples of Allison, Enochs, and American Metal furniture will also be on display.

Mr. Homer Tate will be in charge of the booth.

\* \* \*

#### **Booth 14**

### **LUZIER'S, INC.**

**Kansas City, Mo.**

The Luzier exhibit of fine cosmetics and perfumes will have the following representatives in attendance: Mrs. Dorothy Puckett, Upland; Mrs. Alice Pickell, Newport; Mrs. Eleanor Sellers, South Bend; Mrs. Mary Myer, Huntington; Mr. and Mrs. Ralph Pierce, Hammond, and Mr. and Mrs. J. P. D'Arcy, Indianapolis.

\* \* \*

#### **Booth 15**

### **U. S. STANDARD PRODUCTS COMPANY**

**Woodworth, Wis.**

U. S. Standard Products Company will have on display a line of biologicals, ampules, glandulars, and specialties. They will have something new to show which will be of great interest to the medical profession.

The salesmen working in the Indiana territory will be present to welcome their friends and customers.

Please consider this an invitation to visit our booth and become better acquainted with our products, salesmen, and other representatives of the company.

\* \* \*

#### **Booth 16**

### **HORLICK'S MALTED MILK CORPORATION**

**Racine, Wis.**

Nourishing, digestible, appetizing—these are the three outstanding qualities for which HORLICK'S is famous, whether in powder or tablet form. Visit the exhibit in Booth No. 16. You will be interested in the many uses from infant feeding to old age—note especially the convenience of the tablets in ulcer diets.

\* \* \*

#### **Booth 17**

### **PETROLAGAR LABORATORIES, Inc.**

**Chicago**

This year Booth No. 17 will be occupied by Petrolagar Laboratories, Inc., who offer, in addition to samples of the Five Types of Petrolagar, an interesting selection of descriptive literature and anatomical charts. Ask the Petrolagar representative, Mr. W. A. Hastings, to show you the new HABIT TIME booklet. It's a welcome aid for teaching bowel regularity to your patients.

\* \* \*

#### **Booth 18**

### **MEDICAL PROTECTIVE COMPANY**

**Wheaton, Ill.**

The most exacting requirements of adequate liability protection are those of the professional liability field. The Medical Protective Company, specialists in providing protection for professional men, invites you to confer, at their exhibit, with the representative there. He is thoroughly trained in Professional Liability underwriting.

\* \* \*

#### **Booth 19**

### **E. R. SQUIBB & SONS**

**New York**

Physicians attending the Indiana State Medical Association convention are cordially invited to visit the Squibb Exhibit in Booth No. 19. The complete line of Squibb Vitamin, Glandular, Arsenical and Biological Products and Specialties, as well as a number of interesting new items will be featured.

Well informed Squibb Representatives will be on hand to welcome you and to furnish any information desired on the products displayed.

**Booth 20****R. B. DAVIS COMPANY  
Hoboken, N.J.**

Enjoy a drink of delicious Cocomalt at Booth No. 20. Cocomalt is refreshing, nourishing, and of the highest quality. It has a rich content of Vitamins A, B<sub>1</sub> and D, Calcium and Phosphorus to aid in the development of strong bones and sound teeth; Iron for blood; Protein for strength and muscle; Carbohydrate for energy.

**Booth 21****W. B. SAUNDERS COMPANY  
Philadelphia**

W. B. Saunders Company will show their entire list of titles. Among the more important new books and new editions that will be of particular interest to those attending the Convention are Hauser's "Diseases of the Foot," McLester's "Diet and Nutrition," Jackson's "Cancer of the Larynx," Riddle's "Injection Treatments," Walters & Snell's "Diseases of the Gall-bladder," Wiener & Alvis "Surgery of the Eye," Wolf's "Endocrinology," Callander's "Surgical Anatomy," Christopher's "Textbook of Surgery," Todd & Sanford's "Clinical Laboratory Diagnosis," Wechsler's "Clinical Neurology," Murphy's "The Anemias," Reimann's "The Pneumonias," Pelouze on "Gonorrhea in Male and Female," Fluhmann's "Menstrual Disorders," Cantarow & Trumper's "Clinical Biochemistry," Noyes' "Clinical Psychiatry," McNally's "Medical Jurisprudence and Toxicology," and many standard works such as Bickham's "Operative Surgery," Warbasse-Smyth's "Surgical Treatment," the Medical and the Surgical Clinics of North America, etc.

**Booth 22****ELI LILLY & COMPANY  
Indianapolis**

Eli Lilly and Company, of Indianapolis, feature an eight-foot exhibit stressing the importance of liver extract in the treatment of pernicious anemia, "Merthiolate" (Sodium Ethyl Mercuri Thiosalicylate, Lilly) in the surgical and germicidal fields, "Sodium Amytal" (Sodium Iso-amyl Ethyl Barbiturate, Lilly) in the field of hypnotics, and Iletin (Insulin, Lilly) in the management of diabetes mellitus. This is the first appearance of the Lilly Research Laboratories at the meeting of the Indiana State Medical Association and the exhibit unit has been specially designed for state medical meetings.

**Booths 23 and 24****PITMAN-MOORE COMPANY  
Indianapolis**

The exhibit of Pitman-Moore Company, occupying spaces 23 and 24, will celebrate the dedication of the company's newly enlarged pharmaceutical and research laboratories, corner of Madison Avenue, Morris, and Delaware Streets, Indianapolis.

The Indiana representatives of the company will be on hand to greet their many friends in the medical profession and to explain the details of the company's enlarged quarters.

The new structure adds approximately 80% to the floor space at the Madison Avenue address, and is expected to double that laboratory's production facilities.

**Booth 25****GERBER PRODUCTS COMPANY  
Fremont, Mich.**

Gerber's new Dry Cereal Food will be shown at Gerber's booth No. 25. You are invited to inspect samples of this Cereal as well as the other Gerber Foods which will be on display. Copies of both the professional literature and the booklets for mothers are there for your examination and will be sent to you on request.

**Booth 26****SMITH, KLINE & FRENCH LABORATORIES  
Philadelphia**

NO REGISTRATION REQUIRED—At booth No. 26 no sales resistance will be needed. Smith, Kline & French Laboratories, believing that many physicians dislike efforts to make them register, have arranged their booth for self service.

Information about "Benzedrine Inhaler," "Benzedrine Sulfate," "Benzedrine Solution" and Pentnucleotide may be obtained from the convenient literature dispenser. If additional information is desired, the representative will be glad to answer any questions.

**Booth 27****LIEBEL-FLARSHEIM COMPANY  
Cincinnati**

Liebel-Flarsheim, Cincinnati, Ohio, will exhibit the well-known L-F Short Wave Generators, as well as the famous Bovie Electro-Surgical Units. In addition, other new and useful physiotherapy apparatus will be shown.

A cordial invitation is extended to visit the Liebel-Flarsheim Booth to inspect this new apparatus and have it demonstrated to you.

**Booth 28****THE DICK X-RAY COMPANY  
St. Louis, Mo.**

We contemplate showing the new Westinghouse shock-proof Multiplane Mobile unit. This unit is very efficiently designed and has many unique features. Although it is extremely light in weight, it does not decrease its durability. An outstanding feature of this machine is the ease with which it can be manipulated to any position desired as it is extremely flexible for any conceivable angle.

A detachable fluoroscopic screen holder can be attached to the tube head for fluoroscopic purposes.

It lends itself not only for bedside work but for many other purposes including Multiplane fluoroscopy with an orthopedic fracture table.

This machine must be seen to be appreciated and to observe the many outstanding new developments in design that have been incorporated in this apparatus. Our representatives will be glad to demonstrate this unit.

**Booth 29****PHILIP MORRIS & CO., Ltd.  
New York**

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the Hygroscopic agent, are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

**Booth 30****SHARP & DOHME  
Philadelphia**

Sharp & Dohme will have their new modern display at Booth 30 this year, featuring their well-known Propadrine Hydrochloride Products. There will also be on display a group of pharmaceutical specialties and biologicals prepared by this house. Capable, well informed representatives will be on hand to welcome physicians and furnish information on Sharp & Dohme products.

**Booths 31 and 43****PET MILK SALES CORPORATION  
Saint Louis, Mo.**

An actual working model of a milk condensing plant in miniature will be exhibited by the Pet Milk Company in Booths No. 31 and No. 43. This exhibit offers an opportunity



to obtain information about the production of Irradiated Pet Milk and its uses in infant feeding and general dietary practice. Miniature Pet Milk cans will be given to each physician who visits the Pet Milk Booth.

\* \* \*

**Booth 34**

**JONES SURGICAL SUPPLY COMPANY  
Cleveland**

The Jones Surgical Supply Company of Cleveland, Ohio, are showing a special technical display.

They will have on display the new G. A. Driflash—a new and modern desiccation unit, the new and ultramodern G. A. Infra Red Lamp, and the new short wave arm attachment with a single disk, air-spaced drum to modernize the older type of short wave, using only plate condenser type of electrodes. They will also display their special pharmaceutical line.

Dr. Charles A. McCormick will be in charge of pharmaceuticals and Mr. L. G. Voorhees, Sales Manager of the company will demonstrate the new physical therapy apparatus.

\* \* \*

**Booth 35**

**JOHN WYETH & BROTHER, INC.  
Philadelphia**

John Wyeth & Brother, Incorporated, will exhibit at Booth No. 35. Among the specialties to be displayed are: Amphojel, Wyeth's Alumina Gel, for hyperacidities and the treatment of peptic ulcer; Kaomagma, indicated in the absorbent management of diarrhea and intestinal disorders; Ergoklonin, in tablet, liquid and ampoule form, as a safe and dependable oxytocic; Silver Picrate, in powder and suppository form, for the treatment of trichomonas vaginitis; Mucara, for intestinal stasis; and Bewon Elixir, for promoting the appetite.

\* \* \*

**Booth 36**

**BARD-PARKER COMPANY, INC.  
Danbury, Conn.**

Among the Bard-Parker products exhibited at Booth No. 36 are Rib-Back Blades, Renewable Edge Stainless Steel Scissors, Lahey Lock Forceps, Sterilizing Containers and Hematological Case for obtaining blood samples at the bedside.

\* \* \*

**Booth 37**

**STOKELY BROTHERS & COMPANY, Inc.  
Indianapolis**

The natural flavor in Stokely's Baby Foods comes from the special process used in preparing them. The special process, called COMMUNITING, produces a smooth, uniform texture. But most important, it retains to an amazing degree the natural color and the garden-fresh flavor of the specially grown Stokely fruits and vegetables used in their Baby Foods. For further details of the Stokely process and Baby Food products, visit booth 37.

\* \* \*

**Booth 40**

**THE FORT WAYNE OPTICAL COMPANY, Inc.  
Fort Wayne, Ind.**

The Fort Wayne Optical Company will have in space No. 40 display of the newest type frames, lenses, mountings, machinery, refracting equipment, ophthalmic instruments of all types, also artificial eyes. We represent all the leading manufacturers in the United States, of optical merchandise.

The Fort Wayne Optical Company is an independent concern, representing all large manufacturers, but dominating in Bausch & Lomb merchandise; however, we handle a large portion of Shuron Optical Company, American Optical Company, Continental Optical, Bay State Optical Company, etc., merchandise. We are known throughout Indiana, Ohio, and Michigan, as a high-grade prescription house and we enjoy the confidence and prescription work of leading oculists and ophthalmologists in the above mentioned section, due to the

fine quality of merchandise used and our high-grade workmanship and service.

The most modern and complete refracting room equipment, mainly manufactured by Bausch & Lomb and Shuron Optical Company, will be on display.

Two representatives will attend our booth: James H. S. Olds and Glenn Keller.

\* \* \*

**Booth 42**

**A. S. ALOE COMPANY  
St. Louis**

A. S. Aloe Company of St. Louis, Missouri, will have a complete exhibit in charge of its Indiana representatives, Messrs. D. F. Curtis, Earl Garson and R. E. Oldfather. Featured in their display will be a full line of American-made stainless steel surgical instruments at new low prices and many specialties such as the Radcliff Self-Retaining Perineal Retractor, which permits unassisted post-partum repair, and the sensational new Aloe-Dazor Floating Lamp, which is an entirely new idea in office illumination. This lamp, priced at little more than an ordinary goose-neck, provides instant adjustment in any position at a finger touch.

**DATA REGARDING PREVIOUS ANNUAL  
SESSIONS**

<i>Year</i>	<i>Session</i>	<i>Place</i>	<i>Attendance</i>
1908	59th	French Lick	312
1909	60th	Terre Haute	421
1910	61st	Fort Wayne	450
1911	62nd	Indianapolis	748
1912	63rd	Indianapolis	590
1913	64th	West Baden	312
1914	65th	Lafayette	527
1915	66th	Indianapolis	646
1916	67th	Fort Wayne	381
1917	68th	Evansville	270
1918	69th	Indianapolis	388
1919	70th	Indianapolis	-----
1920	71st	South Bend	421
1921	72nd	Indianapolis	550
1922	73rd	Muncie	522
1923	74th	Terre Haute	823
1924	75th	Indianapolis	1,012
1925	76th	Marion	800
1926	77th	West Baden	900
1927	78th	Indianapolis	1,500
1928	79th	Gary	892
1929	80th	Evansville	814
1930	81st	Fort Wayne	1,115
1931	82nd	Indianapolis	1,033
1932	83rd	Michigan City	904
1933	84th	French Lick	637
1934	85th	Indianapolis	1,814
1935	86th	Gary	1,011
1936	87th	South Bend	1,150
1937	88th	French Lick	1,154
1938	89th	Indianapolis	1,751
1939	90th	Fort Wayne	?

# THE JOURNAL

OF THE

## INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL  
PROFESSION OF INDIANA

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SEPTEMBER, 1939

## Editorials

### OUR PRESIDENT

Edmund Michael Van Buskirk was born in Allen county, some sixty-four years ago, in the town of Monroeville. Graduating from the high school there, he attended Ohio Northern University and later enrolled in the Fort Wayne College of Medicine from which he received his medical degree in 1902. He began practice immediately, locating in Fort Wayne. A few years later he took postgraduate work at Harvard University and soon thereafter limited his practice to roentgenology in which specialty he has made an unusually good record and has become widely known. He has served as county health commissioner for Allen county and for two years was a member of the Fort Wayne Board of Health. He has been a member of the Indiana State Board of Health since 1933.

He has held many official positions in medical organizations, some of which were president of the Allen County Medical Society, president of the Twelfth District Medical Society, president of the Indiana Roentgen Society, and vice-president of the Indiana State Medical Association (in 1910). He served as captain in the Medical Corps of the U. S. Army during the World War when he was located at Camp Beauregard.

Dr. Van Buskirk is a Fellow of the American Medical Association and a member of five radiological societies. He also holds the certificate of the American Board of Radiology. During the past few years he has contributed liberally to the literature of his specialty, no less than seven articles having appeared under his name. He is at present head of the group that some years ago built the Wayne

Pharmaceutical building—an office building for physicians and dentists—in Fort Wayne. He is a member of the Fort Wayne chapter of the Sons of the American Revolution.

In 1906, Dr. Van Buskirk and Miss Louise Schwarze were married. They have two children, Edmund L. Van Buskirk, M.D., now practicing in Lafayette, and Mrs. Alice Van Buskirk Alter of Fort Wayne.

So much for the biographical phases of President "Van," as he is generally known to several thousand Hoosier physicians. We have known Van through more than three decades during which time he has been an active member of our Association and one to whom many of us have gone for that wholesome advice and help for which he always can be depended upon. Van is a methodical person and does not offer snap judgment on any matter presented to him; rather is he prone to give it the most careful consideration before expressing an opinion. On numerous occasions we have had opportunity to observe him in the Council of which he was a valued member for many years and he was unfailingly careful and considerate. During his service as our president this year, he has given freely of his time and ability; he has gotten around over the state and attended meetings in almost every section of Indiana; his monthly page in THE JOURNAL has shown the most careful preparation and has called forth much favorable comment from member readers.

In honoring Dr. Van Buskirk with the presidency of the Association, that body has indeed honored itself, for he has made good, as we knew he would.

### MENTAL DISEASE

The September topic of the month is "Mental Disease." We feel that it is well to devote special attention to the subject at the present time, for there can be no doubt but that there is a decided increase in the number of those who are mentally ill, and it would seem that this increase has been more marked in the past few years. Dementia praecox, more universally known now as schizophrenia, undoubtedly is on the increase; that is, there are more cases reported. We sometimes wonder whether the increase is real or whether it is due to the fact that physicians are more alert in making the diagnosis in this type of mental disease. The success of the use of insulin and metrazol in the shock treatment of schizophrenia is ably discussed in the original articles in this issue.

Indiana already has five state hospitals for the mentally ill, all of which are usually crowded to an uncomfortable degree. Frequently those in charge of these institutions are hard pressed to take care of the so-called emergency cases. The Indiana law regarding hospitalization of those legally adjudged of unsound mind is such that if a judgment of that kind is rendered, the patient



is technically in charge of the county sheriff until such time as he can be placed in the hospital.

Favorable results in the treatment of mental patients in our state institutions is markedly on the increase; especially is this true of paresis. It was not long ago that a diagnosis of paresis was equal to a death warrant; now we have scores of paretics who have recovered at least sufficiently to go about their daily affairs.

The problem of handling mental cases continues to be one of magnitude, but we feel that the outlook for that type of patients is much better than at any time in the past.

## HEAD INJURIES

So long as there are automobiles and airplanes, head injuries will be a major medical problem. The liability of the brain to damage gives to injuries of the head an importance far above those injuries of many other structures. Klemme of St. Louis in his complete clinical classification considers the simple fracture of the skull; compound fracture; depressed fracture; intracranial hemorrhage, venous and arterial; Jacksonian convulsions due to focal injury of the brain; and massive brain damage.

Immediate operation for head injury is rarely required. The primary purpose for operations to the head is to prevent infection or to relieve compression of the brain. Head injuries are frequently associated with serious injuries in other parts of the body with an associated traumatic shock. This must be treated first, before any other disturbing conditions come up. Immediate x-ray examinations are rarely required, and should be postponed until the patient has recovered from shock and until it is safe to take the pictures. X-ray pictures are primarily for the sake of record and the doctor's protection.

Until a definite diagnosis has been made, narcotics should not be given for the first twenty-four hours because of the possibility of masking important symptoms and respiratory depression. Barbiturates have been unsatisfactory. Many favor large doses of bromides together with chloral hydrate. After a diagnosis has been established, narcotics may then be given.

Injuries to the scalp, contusions and lacerations, generally require no mechanical treatment, but the laceration should be given meticulous care. After debridement of the edges of the wound and thorough irrigation with salt solution to remove foreign particles, the wound is approximated with silk, using the galea for the approximation and a dry dressing.

In fractures of the skull, operations on the skull are indicated to prevent infection or to correct a depression. This applies primarily to compound fractures. Radical debridement is again recommended, regardless of the injury, except in the

speech center. The wound should be closed tightly without drainage.

Formerly, in treating simple linear fractures of the skull, decompressions were done in more than forty per cent of skull injuries; now this operation is rarely even considered. Treatment by hypertonic solutions intravenously or rectally has taken the place of surgery. Nursing care is very important, and neuropsychiatric experience is of great benefit for the understanding of the mental changes evidenced in head injuries. Frequent blood pressure and pulse readings are important. Intracranial hemorrhage, unlike hemorrhage in other parts of the body, does not mean symptoms of loss of blood, but does mean an increase in the intracranial pressure, producing a rise in blood pressure and a slow, bounding pulse. Removal of the clot and ligation of the vessel is of paramount importance.

If a depressed fracture of the skull is not elevated, convulsions of epileptiform nature will develop in twenty-one to twenty-nine per cent of cases. If elevated at the time it is sustained, less than three per cent will have convulsions. With rare exceptions elevation of a depressed skull bone should be done.

Middle meningeal hemorrhage occurs in less than two per cent of cases. Rupture of the arachnoid is more rare. The history of unconsciousness followed by a lucid interval and a secondary lapse into unconsciousness is diagnostic. If allowed to go longer than eighteen hours, recovery is not likely. It must be recognized early and the bleeding stopped.

In massive brain damage with unconsciousness, reflexes absent, and rapid breathing with Cheyne-Stokes characteristics, no relief can be expected. All such cases die a respiratory death.

Internal injury of the brain, with or without skull fracture, accounts for about ninety-two per cent of the patients. Symptoms are most bizarre. Nothing is characteristic. If consciousness is regained within twenty-four hours, prognosis is excellent. If the patient remains unconscious for seventy-two hours, prognosis is fifteen per cent less good and for every hour after this the prognosis becomes rapidly worse. Treatment is by hypertonic solution intravenously or rectally or orally. A fluid balance must be established. One cannot expect dehydration if over fifteen hundred cc. of fluid is given in twenty-four hours. Fifty per cent glucose is good but expensive. Fifty per cent magnesium sulphate as a retention enema is economical and efficient. It must be retained at least fifteen to twenty minutes. There is no damage to the colon even if given indefinitely.

Spinal puncture will quiet the patient. Restlessness is caused by the presence of blood about the brain stem. Spinal fluid drainage should always be done against a manometer.

Spinal drainage should be repeated until the fluid returns clear. Do not reduce pressure more than

fifty per cent at a time. Spinal tap should be done when pulse pressure is greater than fifty. Intracranial pressure very definitely changes with the pulse pressure.

Focal traumatic injury to the brain without fracture usually is a contre-coup injury. Best results are obtained by craniotomy and surgical removal of the injured brain area. This is best done within two weeks of injury.

Subdural hemorrhage is not common and is hard to diagnose. It is often diagnosed as a brain tumor. There is usually a history of injury sustained at some time previous but supposedly not bad enough to cause the patient to be laid up. Perhaps two or three months to a year later the patient has a spell of unconsciousness. Most constant of confusing findings are a papilledema and petechial retinal hemorrhages. Pathology is caused by a venous hemorrhage which is slow and progressive, resulting in an encapsulated mass. Treatment is to do a craniotomy and remove the capsule with the mass and coagulate the bleeding vessel.

Treatment following any head injury should include bed rest for a minimum of four weeks. Fluid should be limited to eighteen hundred cc. in winter and two thousand cc. in summer for four months. In the ordinary case, if instructions are followed, results are good; but when psychiatric problems develop, especially with frontal lobe injury, a disagreeable time for the doctor can be expected unless he puts the patient in the hands of a good neurologist.

## WILLIAM JAMES MAYO, M.D.

Two months ago we recorded the passing of Charles Horace Mayo, brother of William James Mayo, co-founders of the Mayo Clinic. Now we record the death of "Dr. Will" on July 28, 1939, at the age of seventy-eight. "Doctor Will" as he was known to physicians throughout the world, was the senior member of the Mayo Clinic, and was generally regarded as the more conservative and quiet of the two famous brothers. Possessed of surgical ability and skill equal to that of his brother, Dr. Will Mayo contributed largely to our present-day surgical knowledge. Like his brother, familiarly known as "Dr. Charley," he had headed most of the major medical organizations in the country, including the A. M. A. and the American College of Surgeons.

The death of Dr. W. J. Mayo leaves only one surgeon bearing the name of Mayo, Dr. C. W. Mayo, son of Dr. Charles Mayo, actively connected with the Mayo Clinic.

The Mayo Clinic was builded upon a foundation of such strength that there could be no question as to its future. Both Dr. Will and Dr. Charley early saw to it that departments were organized and department heads chosen, and that successors to these various department heads were constantly

being trained. We expect to see the Mayo Clinic carry on as in the past—one of the greatest medical institutions of the world.

## GOVERNMENT AND THE DOCTOR

Numerous editorial comments appeared in the metropolitan newspapers following the dismissal of the anti-trust suit against the American Medical Association and various view points, political and otherwise, were expressed. An editorial that seemed most fair and unbiased was published in the *Chicago Daily News*, July 31, and is as follows:

"The Federal Court of the District of Columbia dismissed the government's anti-trust suit against the American Medical Association and allied medical bodies. If the government now insists upon taking its grievance against the doctors to a higher tribunal, then the government is what Mr. Beadle said the law was. Court proceedings ought never to have been instituted to determine, after months of hearings, something that should instantly have been arrived at by the application of elementary horse sense upon the part of the prosecution. It was a fantastic waste of the court's time and the taxpayers' money.

"The court finds that doctors are not tradesmen, as that term is defined by the Sherman Act. Of course they are not. Everyone with a grain of sense knows it. Everyone knows that the framers of the Sherman law hadn't the slightest notion of including professional men within the scope of the act. Nearly everyone knows, also, that our American medical men not only are among the world's most highly skilled, but among the most conscientious and tireless doers of good and disbursers of charitable service in this country. To charge such men with comprising a selfish trust, for the purpose of forestalling medical aid from those who need it, and enabling themselves to wax fat at the expense of the public, was utter, malicious tosh.

"This is not to say that the doctors, or their associations, are perfectly free from error. It is not to say that government should not do all in its power to make medical and hospital care more readily available to people who now find them difficult to obtain. But government, in striving toward this admirable aim, will get nowhere by fighting and harassing the doctors. It must, rather, co-operate with them, and seek their indispensable advice and aid.

"The trust-busters, meanwhile, will do themselves, the doctors and the country a good turn by dropping this sorry matter right where it now stands. There are plenty of real trusts in America, plenty of actual enemies of our economic welfare, and plenty of demonstrable restraints upon the free flow of commerce that require the unsparing attention of these crusaders. Let them, therefore, get up against the real evils, and stop wasting their energies and manpower—they are forever crabbing, by the way, about their shortage of personnel—on windmills."



## Editorial Notes

In connection with the survey which we are making as to how THE JOURNAL is being received by our members, there have been received numerous suggestions that case reports be more frequently used. This is an important matter and we ask our members to be more generous in sending in brief, but complete case reports. THE JOURNAL will be glad to have such reports submitted for publication.

In speaking of the recent Federal court decision concerning which editorial comment is made in this issue, a lawyer friend of ours made the observation that he was highly pleased with the decision of the judge principally because of the fact that if an assistant of the U. S. Attorney General's office had been successful in his attempt to prosecute the medical profession, he felt that it would be but the beginning of similar procedures against other professions and practically every form of business.

Although the annual convention at Fort Wayne is only a few weeks away, it is not too late for the exhibit hobbyist to arrange to display his "weakness." If you have a hobby of such a sort that it can be exhibited, we suggest that you immediately get in touch with Dr. Eugene L. Bulson, 406 West Berry Street, Fort Wayne, who is in charge of the hobby exhibit at our annual convention. We are sure that Dr. Bulson will see to it that suitable arrangements will be made for the material to be properly displayed.

Patients at Sunnyside Sanatorium, located near Indianapolis, are indeed fortunate in having among their number a former editor of the *Lawrence, Indiana, Legend*, and at present editor of the official sanatorium newspaper, the *Rainbow*. Editor Brantlinger has gotten out a little booklet entitled the "Caretaker's Handbook" which consists of plenty of his personal articles together with an appendix which lists the latest methods in the treatment of tuberculosis. In addition to the editor, the contributors to the present number of the little handbook include Dr. Bush of California, Dr. Levine of New York City, together with Dr. Pace, superintendent of the Rockville Sanitarium.

Recently we have been much interested in looking over exhibits and files of some of the older Indiana newspapers. In the *New Harmony Gazette* for July 4, 1827, we find the announcement that

a new cure for consumption was about to be released, as follows:

"An important medical discovery will soon be brought into notice—it consists of a new remedy to prevent the formation of consumption in those predisposed, and to cure it when formed in nine cases out of ten. It consists of two different articles to be used together—one to be taken into the stomach in the palatable shape of chocolate, syrup or milk, the other to be inhaled into the lungs as a sweet and fragrant perfume."

In this issue of THE JOURNAL will be found an article in regard to the convention city (Fort Wayne) which was prepared by Dr. Lyman T. Rawles, a member of our editorial board and a resident of Fort Wayne. Dr. Rawles' enthusiasm for his subject led him into extensive research from which he produced a highly interesting historical article of such length that our budget for publication simply couldn't "take it" and we were compelled to condense and delete much of the historical data. However, the original manuscript is deemed so valuable that it has been filed for permanent record with Dr. James B. Maple, historian for the Indiana State Medical Association.

While it is true that there has been little decrease in the number of casualties from automotive traffic, it is clear that much remains to be done in reducing this huge and useless mortality. One of our Indiana papers recently commented on the unnecessary use of the automobile horn, a case in point being that of an accident in northern Indiana in which three young women were killed presumably because of the impatience of a driver immediately behind their car who set up a persistent honking, causing the girls to hurry onto a railroad crossing and into the path of a second train. Residents of any of our larger communities will agree that a very large percentage of the use of automobile horns in our cities and towns is wholly unnecessary. The Michigan City accident is but another example of what may be the result of insistent and unnecessary honking of horns.

We are of the opinion that the new plan of the State Department of Public Welfare of training attendants at the state hospitals for the mentally ill is a move in the proper direction. Our information is that the head of the department of nursing is spending at least three weeks at each of the five state hospitals, demonstrating the methods of special nursing required in psychiatric cases. We are further advised that at the conclusion of this three weeks of study, the members of the classes will be examined and the attendants are to be rated on the basis of these examination results. It is generally recognized that nursing in these insti-

tutions is of a very different type than ordinary hospital care, and that mental cases frequently call for special care, particularly special observation. We are in full accord with this program and believe it will work out not only to the satisfaction of the state hospital authorities but it will prove to be beneficial to the patients.

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Dr. E. S. Godfrey, New York State Commissioner of Health, writes us regarding a misunderstanding in the matter of serological tests for syphilis now required of all matrimonial candidates in that state. It seems that residents of other states have had no little trouble in getting marriage licenses in New York state. This law became effective on July first of this year. Boiled down, the requirements are that all applicants for a marriage license must present the required certificate, which may be signed by any legally licensed physician, regardless of his residence. This must be dated at the time the blood specimen is taken. The blood must be sent to a laboratory duly recognized by the New York State Department of Health. A few laboratories outside of New York have been officially recognized, but it is advisable for Indiana physicians who may be called upon to make such examinations to send the blood directly to the laboratory of the State Health Department, Albany, New York. At this distance, it would be well to use the air mail for this service.

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The U. S. Federal Trade Commission keeps going along in their work of shutting off some of the blatant advertising of patent and proprietary medicine. The latest highly-advertised products to feel the axe are Listerine and Alka-Seltzer. The companies manufacturing and marketing these products, according to *The Journal of The American Medical Association* for August 12th, have promised to abide by the decision of the Commission and to pull their advertising punches to no little degree. Listerine, long-time cure for "halitosis," of late has been going strong on the subject of dandruff. Its advertisers have claimed that it "kills the dandruff germ," "annihilates the dandruff germ," and that it gets at the cause or the root of the trouble. Again do we take our hat off to the Commission; gradually they are toning down some of the extravagant claims made by advertisers of many of the nostrums. And, in passing, we may express the hope that some of the blah-blah emanating from our radios will be cancelled by this or some other authoritative body. Just now a lot of guff is being transmitted via the ether, so grossly overdone that even laymen are beginning to complain about it.

it contained some valuable advice for the lay public, particularly during the vacation season when so many are around the woods and lakes. This doctor avers that it is only the sap from the cut or crushed parts of the poison ivy plants that causes trouble, and that merely being in the presence of the poison ivy foliage will do no harm. However, our experience is that some persons are so susceptible to this type of infection that we recall instances in which their being near the poison ivy foliage has caused plenty of trouble. Only recently we learned that the editor of a newspaper in southern Indiana, who was highly susceptible to poison ivy, found himself thus infected after having been confined to his bed for four or five weeks. The only explanation that seemed possible was that the oily sap from the poison ivy may have been brought into his room by a visitor. Recently a new treatment has been brought out for poison ivy infection, but so far as we know the reports concerning the use of it are not sufficient basis for any conclusions as to its efficacy.

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In the report of the necrologist in this issue there are several items worthy of notice. Few physicians die before the fifties and the average attained age was about sixty-eight years and five months; so, as a profession we seem to reach about the allotted three score and ten. More than half of those who died were not members of their county societies. Many had been members in former years but with age they gradually dropped out. Our county secretaries should make an earnest effort to keep these men in and when they reach the age of seventy-five they should then be made honorary members and their dues kept up by the society. There was a marked increase in deaths due to cardiac conditions, over last year, going from 40.9% to 49.5%. The conditions found were those belonging in the latter decades of life, such as coronary diseases and hypertensive conditions with very few organic impairments. Quite a number were listed as myocarditis, chronic myocarditis and myocardial degeneration; these terms are questionable and quite probably should be classified under other names. Acute inflammatory diseases accounted for only eleven deaths in the entire group, which is to be expected when you note that ninety-two out of the one hundred seventeen were sixty years old or better. Four were killed in auto accidents as against seven last year and this follows the general trend of decrease in auto wreck deaths in this state.

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THERE IS NO BETTER WAY FOR YOU TO LEARN  
WHAT YOUR STATE ORGANIZATION  
IS DOING THAN BY STUDYING THE ANNUAL  
REPORTS AS PUBLISHED IN THIS JOURNAL.  
THIS ISSUE IS TRULY A REFERENCE WORK. KEEP IT.

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An Indiana physician, talking over a local broadcasting station, spoke on the subject of poison ivy. Judging from the newspaper abstracts of his talk,





## President's Page



### PREVENTION OF INSANITY

It has been said that "Constructing more and more piles of masonry for custodial care of the mentally deranged individual is not the answer. Scientific prevention is the ideal." The propagation of preventive medicine, that is physical hygiene, has been proven to be most successful, and surely the progress of mental hygiene, with special attention to the prevention of mental and nervous disorders, will be just as successful.

"The hangover of the medieval ages that stamped mental trouble as being the result of demoniacal possession or some other nefarious and disgraceful causation" must be corrected in the minds of the public, if definite progress is expected to be made in this type of illness. Many individuals have thought that this disease is a terrible disgrace, and frequently a patient has been denied the proper medical and psychiatric care for fear someone would find it out. Proper psychiatric education can do much to assist the public in overcoming this attitude toward mental and emotional disorders.

In the first place, good heredity is of prime importance, and one should not be too over-confident, for frequently a complete family history may not be available, or a specific transmissible disease may not be in evidence.

We find that mental disorders are present from the cradle to the grave: behavior problems of the child, the special difficulties of the adolescent, and the mental troubles of adult life and old age.

Adequate instruction and proper medical care for pregnant mothers contribute to the well being of the infant. Some pregnant women are told of the most horrifying experiences incidental to child bearing and labor. The doctrine is probably promulgated over the radio by the "blessed events" of Walter Winchell, or the heroine of fiction who "goes through the valley of the shadow." All these thoughts tend to impair the mother's emotion and make her less able to become a good intelligent mother.

In addition to good prenatal care, good obstetrical care at the time of delivery is very important. Many poorly executed operative deliveries lead to birth injuries and mentally impaired children.

A good family environment contributes a great deal to the development of a physically and mentally normal child. In case a member of the family is afflicted with a mental disease, and if it is impossible to remove this person from the family, it is advisable to send the normal child from these surroundings as early as possible to the nursery school and kindergarten, so that he is brought in contact with the normal children. Vacations at camps during the summer months for the child help remove him from his home surroundings.

For the child who presents a behavior problem, or unusual personality traits, our larger cities have child guidance clinics staffed with a psychiatrist, psychologist and psychiatric nurses, which help solve these difficulties. Also the school system in the large cities in the state have a department of mental measurements staffed with a psychologist who examines these so called problem children and tries to make an adequate adjustment for them. It is possible to remove a child from a group of normal children with whom he is unable to compete, and place him in a special room for special training, or into a vocational school where he can get along and do the work of which he is capable. In addition there is always a consulting psychiatrist available to offer help and suggestions to the child. This program very definitely prevents the development of a mental, emotional or nervous disorder in this group.

The adult problems generally come to the attention of the general practitioner. There are many cases of mental and nervous disorders which oftentimes are turned away, told to take a trip, or spend some time resting in a sanatorium. Some of these are prepsychotic personality changes which need very definite care and attention. If these were carefully managed, it would probably prevent the occurrence of the more serious forms of mental disease. Very often a correction of physical defects, re-educational training, a solution of their personality problems, and an adequate philosophy of life, send these individuals on the road to health and happiness.

In the later periods of life we see those afflicted with senile dementia, paranoia and paresis. No one knows why one person passes through the senescent period in full possession of his faculties and others do not. Occasionally, these very definite mental diseases are the result of personality disorders and mental conflicts in their early life which become progressive in character. Of these mental diseases, general paresis is the only one in which special therapy has been found to be of value. General preventive measures as to personal hygiene and maintenance of good physical health are all that can be accomplished in ameliorating these conditions.

In our own state, a mental hygiene clinic program has been established and research clinics are to be held in various areas for the purpose of determining the cause of mental disorders. It is expected that community resources will be developed for the care and treatment of such mental patients. Excellent cooperation is reported in utilizing clinic services, and all clinic groups have had crowded schedules.

*E. M. VanBuskirk.*

## THE MENTAL HYGIENE PROGRAM OF THE DEPARTMENT OF PUBLIC WELFARE

GEORGE C. STEVENS, M.D., Director  
Division of Medical Care, State Department of  
Public Welfare  
Indianapolis

The Department of Public Welfare, in formulating a mental hygiene program, has been concerned (1) with efforts to prevent the occurrence of mental disabilities through public education, expansion of community resources, early detection of personality difficulties, and treatment or guidance of these difficulties; (2) with the provision of hospital facilities for the mentally ill which includes equipment for modern treatment methods (as against the older concept of custodial care); (3) with the program for rehabilitation of persons convalescing from a mental illness that they may be accepted back into their communities.

In connection with a program of prevention, the State Board of Welfare, on November 23, 1938, approved the establishment of research clinics in mental hygiene to be held in various areas of the state for the purpose of conducting research into the causation and prevention of mental disorders, as well as providing for a service in diagnosis and treatment of indigent victims of mental maladjustments of various types. The approval of the executive committee of the Indiana State Medical Association was first obtained for this program and subsequently the Department of Public Welfare appointed an Indiana Council on Mental Hygiene, composed of the following members:

H. J. Norton, M.D., Columbus, *Chairman*  
Larue Carter, M.D., Indianapolis  
Herman Baker, M.D., Evansville  
L. P. Harshman, M.D., Ft. Wayne  
Murray DeArmond, M.D., Indianapolis  
C. M. Louttit, Ph.D., Bloomington  
Miss Emma Puschner, Indianapolis  
Mr. Louis Evans, Indiana University Center  
Mr. Frank Flynn, South Bend  
Mrs. Austin Clifford, Indianapolis  
Mr. Donald DuShane, Columbus

### Ex-officio—

Mr. T. A. Gottschalk, Indianapolis  
George C. Stevens, M.D., Indianapolis  
Miss Mildred Arnold, Indianapolis  
Mr. Donald T. Griffin, Indianapolis  
Verne K. Harvey, M.D., Indianapolis  
Howard B. Mettel, M.D., Indianapolis.

The medical members of the council to act as a liaison group between the Indiana State Medical Association and the Department of Public Welfare in its mental hygiene program and the council as a whole to be an advisory body to the Department of Public Welfare in furthering the mental hygiene program for Indiana. Two meetings of this council

have already been held and committees on mental hygiene clinics, mental health legislation, and mental health education are active. As a further requirement in the establishment of mental hygiene clinics, the approval of the county medical society is required, as well as the approval of the county board of welfare. Each clinic has a local advisory council on mental hygiene, among the members of which are always one or two medical men who act as a liaison between the clinic staff and the county medical society.

The first clinic established was that in Columbus, which began operation on December 9, 1938. Subsequently, clinics were established at Bloomington, Richmond, Gary, South Bend, Lafayette, Terre Haute, Marion, Peru, and Crawfordsville. Approval has already been given by the county medical society for the establishment of a clinic at Muncie and steps are under way to open this clinic in the near future.

In practice, a clinic serves from 3 to 5 counties surrounding it. All patients who are not wards of the county departments or institutional cases are only referred to the clinic with the approval of a physician and there is the additional requirement that physical examinations previously made by practitioners in the community accompany each patient to the clinic. Thus far, approximately 75% of clinic referrals are minors; 25% are adults. In most cases, clinics are held two days a month in each area, although in some of the larger centers, 3 to 5 days of clinic time each month are offered.

A mental hygiene clinic manual for the guidance of the clinic staff and the information of county departments and community agencies has been prepared. This manual defines the procedure necessary to establish a clinic, discusses the various agencies which should be represented on a local advisory committee functioning in connection with the clinic, and defines, respectively, qualifications and duties of a psychiatrist, psychologist, and psychiatric social worker. An effort is also made in the manual to create the proper attitude towards clinic attendance. In this connection, we quote from the manual. "The patient has nothing to fear when he visits the office of the psychiatrist; he will be given an opportunity to discuss his problems with the psychiatrist. . . . The office of the psychiatrist is not to sit in judgment upon misbehavior, is not to shame and punish, but is rather to seek the cause of maladjustment and to treat the unhappy patient with understanding. He studies the patient's words and behavior, and he answers the questions the



patient cares to ask. He explains to the patient anything that seems to be puzzling him and he offers to the patient possible solution for his difficulties." Further discussing the duties of a psychiatrist, the manual states: "The psychiatrist studies carefully the social, medical and psychological report of each patient before the patient is interviewed. From the social history, he obtains an impression of the neighborhood in which the patient has lived, of his home conditions, of the number and character of his close relatives and companions, of his work, play and school record, and of his general health. The patient's problem is stated as seen by others than himself and one or more possible ways of meeting this problem are suggested by the social worker. The medical record gives a picture of the patient's physical condition at the time at which his doctor examined him, and it frequently contains information which casts a light on the patient's past behavior or alters the nature of the recommendations for his future care. The psychological report gives the psychiatrist an idea of the patient's mental ability—his general level of intelligence, his vocational aptitudes, his ability to memorize, reason and form mature judgment. The psychiatrist, after coordinating the study and findings of the various specialists, is able to make the proper recommendations and plans for the patient."

At the close of each clinic day, a staff conference is held at which the psychiatrist presides and persons from the referring agency, including the physician, school teacher, nurse, or others attend and are drawn into a discussion of the case with the object in view of formulating a program suited to the needs of the patient and which is within the community's ability to provide.

The areas served by the various established clinics, after acceptance by the local county medical society, are as follows:

<i>Clinic City</i>	<i>Counties Served</i>
1. Gary:	Lake, Porter, Newton, Jasper
2. South Bend:	St. Joseph, Marshall
3. Lafayette:	Benton, White, Carroll, Clinton, Tippecanoe, Warren, Fountain
4. Peru:	Pulaski, Fulton, Cass, Miami, Wabash
5. Marion:	Howard, Tipton, Grant, Blackford
6. Terre Haute:	Vermillion, Parke, Vigo, Clay, Sullivan
7. Crawfordsville:	Montgomery, Putnam, Boone, Hendricks
8. Richmond:	Randolph, Henry, Wayne, Rush, Fayette, Union, Franklin, Dearborn, Ohio
9. Bloomington:	Morgan, Owen, Greene, Monroe, Lawrence, Brown
10. Columbus:	Johnson, Shelby, Bartholomew, Decatur, Jackson, Jennings, Ripley

In connection with the improvement of hospital facilities for the mentally ill, the Division of Medical Care, through a qualified psychiatrist with long experience in institutional service, makes regular visits to all state hospitals, the institutions for mental defectives, and the Village for Epileptics. The object of these visits is essentially that of making a survey of progress being made by the hospital, the making of recommendations for further improvement, and subsequently in cooperation with the hospital administration, seeking to make the recommendations effective. In all the state hospitals at the present time, acute treatment services are established patterns. Insulin, metrazol, and malarial therapy and psychotherapy are utilized in treating the newly admitted patient, the hospitals having the aim in mind of an early return of the patient to his community where it is hoped to provide some supportive follow-up through social service workers.

CORRESPONDENCE

BABY SHOWS

To the Editor:

I was very much interested in the subject of Baby Shows which appeared in the July issue of THE JOURNAL. This is one of the best articles which I have ever seen on the subject and gives sufficient reason for the elimination of baby shows in all communities. It is evident that the facts appearing in the article were secured from someone who had something to do with a scheme promoted by a women's fraternal association which attempted a similar scheme in Rochester in 1937.

It does not seem reasonable for an organization of women to be promoting a proposition as detrimental to health as this appears to be. It has been promoted in a number of cities in the selfish interest of a fraternal association and it was stopped here before it had gotten much headway and the promoters left the city. Some group promoted a baby show in Milwaukee and we believe the facts on that affair are in possession of the Indianapolis Better Business Bureau.

I hope that the editorial in THE JOURNAL will be copied by other medical publications throughout the country and if other cities want to do something to prevent these promotions, they might get in touch with their Society for the Prevention of Cruelty to Children, as it was that organization that did the major work in closing up the scheme here.

Yours very truly,

BETTER BUSINESS BUREAU OF ROCHESTER, INC.  
F. M. WILLSON, *Manager*.

## REPORT OF SOUTHWESTERN INDIANA POST- GRADUATE CONFERENCE ON OBSTETRICS

"An enjoyable and instructive time was had by all." Such was the opinion, at least the hope, of the committee of preparation for the Postgraduate Conference held in Evansville, August 8, at the St. Mary's Hospital. This is the first of a series of such conferences to be held monthly in Evansville.

The conference was presented by the Postgraduate Committee of the Vanderburgh County Medical Society in cooperation with the Committee on Medical Education and Hospitals of the Indiana State Medical Association, the Bureau of Maternal and Child Health of the Indiana State Board of Health and the Department of Postgraduate Education of the Indiana University School of Medicine.

From 9:00 a. m. to noon cases were presented and discussions made of obstetrical subjects by the local physicians interested in obstetrics. At noon a fifty-cent luncheon was served at the hospital. Informal discussion of the morning papers and pleasant conversations continued here.

The afternoon, from 1:30 to 5:00 p. m., was in charge of Carl P. Huber, M.D., the resident advisor and research director in obstetrics and gynecology at Indiana University. His subjects were "Toxemias of Pregnancy" and "Forceps Operations." Clear presentations of the subjects were followed by motion pictures and manikin demonstrations.

At 6:30 p. m., dinner was served at the Vendome Hotel which was followed by the address of the evening by Nicholson J. Eastman, M.D., Professor of Obstetrics, Johns Hopkins University. The subject, "Hemorrhage During Pregnancy and Labor," included statistics on the causes of maternal deaths; the treatment of post partum hemorrhage by bimanual compression of the uterus without the use of packing; the diagnosis of placenta previa by x-ray and the treatment of placenta previa by the use of Willett's forceps.

Physicians were registered from all of the counties of the southwestern part of Indiana. Fifty to sixty physicians were in attendance at the day meetings and seventy-five at the night meeting.

### SEPTEMBER PROGRAM

Next month, September 19, a similar meeting will be held at the Deaconess Hospital in Evansville with the subject of "Pediatrics" for the day. During the day there will be discussions on pediatric practice by local physicians especially interested in these subjects and demonstrations in the diet kitchens and the laboratory. The complete program follows:

## POSTGRADUATE CONFERENCE ON PEDIATRICS

Sponsored by

VANDERBURGH COUNTY MEDICAL SOCIETY

Deaconess Hospital — Evansville

Tuesday, September 19

### Morning Session

- 9:00 Motion Pictures—  
"Care and Feeding of the Premature Baby"  
"Some Diagnostic and Therapeutic Procedures"  
"Pediatric Nursing Technique"
- 9:30 Adeline Muelchi, M.D.  
Demonstration of Pediatric Procedures  
Schick and Dick Testing  
Intravenous and Peritoneal Blood Injections  
Nasal Feedings—Blood Specimens—Lumbar Puncture
- 10:00 Isidor Raphael, M.D.  
Public Health Clinic—Consideration of Procedures in Child Health Conferences
- 10:45 Russell Springstun, M.D.  
"Early Recognition of Rheumatic Fever"
- 11:15 Mr. W. C. Murphy  
"Emotions of Young Children"  
(To be broadcast from Station WGBF)
- 12:00 LUNCHEON AT DEACONESS HOSPITAL  
Round Table Discussions

### Afternoon Session

- 1:30 Harold Lynch, M.D.  
"Common Feeding Problems of Infants and Children"
- 2:15 Demonstration of Preparation of Infant's Formulae and Home Pediatric Nursing Procedures  
(To be presented by Evansville P. H. Nursing Ass'n, and Miss Pearl Murray, Deaconess Hospital.)
- 2:45 Dallas Fickas, M.D.  
"Early Recognition of Osteomyelitis"
- 3:20 Bernard Ravdin, M.D.  
"Diagnosis and Treatment of Acute Otitis Media in Children"
- 3:45 "The Cross Eyed Child"  
Presentation by Charles Leich, M.D.
- 4:00 Case Presentations by A. Graeme Mitchell, M.D., Professor of Pediatrics, Children's Hospital Foundation of University of Cincinnati
- 5:00 INTERMISSION

### EVENING BANQUET

6:30 P.M.—VENDOME HOTEL—EVANSVILLE

A. Graeme Mitchell, M.D., Cincinnati, Ohio

"Consequences of Diarrhea and What Can Be Done About Them"

The Vanderburgh County Medical Society appreciates the cooperation of the Committee on Medical Education and Hospitals of the Indiana State Medical Association and the Bureau of Maternal and Child Health of the Indiana State Board of Health in arranging this Conference.



# Under the Capitol Dome

## PHYSICIANS LICENSED TO PRACTICE

A total of 108 applicants successfully passed examinations conducted last June 20 to 22 for licenses to practice medicine in Indiana, Miss Ruth V. Kirk, secretary of the State Board of Medical Registration and Examination, has announced.

Ninety-nine of the successful applicants were graduates of the Indiana University school of medicine. The others were from schools outside Indiana.

The examinations were conducted by the state board in the Indianapolis Athletic Club.

Those who passed successfully were:

### From Indiana University School of Medicine

Bartholomew, Mary L. B.	Maurer, Lawrence E.
Battersby, James S.	McCall, Milton L.
Baumgartner, Geraldine C.	McCoy, Roy R.
Benham, Shirley Jr.	McFall, Voris F.
Boling, Roderic Lee	McKinley, Arthur D. Jr.
Brady, Thos. A.	McMannis, Walter
Brill, I. W.	McTurnan, Robert S.
Brown, Harry M.	Marshall, Millard R.
Coplin, Irvin	Martin, Loren H.
Carrel, Francis E.	Mentendick, Maurice H.
Clark, Harriet M.	Meyer, Theodore O.
Collins, Hubert L.	Miller, LaVerne B.
Comer, Charles W.	Milleson, Anna L.
Crain, James W.	Morris, Marion H.
Cripe, Earl P.	Nie, Louis W.
Davis, Marvin R.	Parke, Delmar D.
Earhart, Henry T.	Parsons, Delbert J.
Fitzgerald, Brice E.	Price, A. David
Foxworthy, Laurel R.	Rivers, Glynn A.
Gambill, William D.	Richter, Samuel
Garber, A. Elizabeth	Rieth, Paul L.
Gilbert, Louis Jay	Rudolph, Franklin G.
Gillespie, Charles F.	Salassa, Robert M.
Gossard, Meredith B.	Scott, Robert O.
Grisell, Ted L.	Shanklin, James G.
Hammersley, George K.	Shiffer, Maynard C.
Hansell, Robert M.	Shullenberger, Cleo C.
Hammond, Stanley M.	Smith, John H.
Harshman, Martin L.	Stafford, Wm. C.
Harvey, Bennett B.	Stone, David F.
Headley, Lloyd M.	Stover, Raymond M.
Herrmann, Gordon T.	Smullen, Willard C.
Hill, Kenneth G.	Templeton, Ames R.
Hinshaw, Warren V.	Tipton, William R.
Hedgin, Phillip T.	Tomak, Milton E.
Horsman, Russell K.	Travis, Julius C. Jr.
Houston, Marietta	Travis, Mary Diggs
Hull, Jack D.	Trockman, Richard J.
Johnston, William H.	Walker, James S.
Jones, Paul A.	Walters, Charles E.
Kahn, Howard L.	Ware, James R.
Kendall, Forest M.	Warren, Carroll B.
Kepler, Robert W.	Warren, John C.
Kirch, Leo N.	Warren, Ward B.
Kitchell, Mary Spurgeon	Ward, Wesley C.
Kuhn, Robert W.	Williams, Fielding P.
LaDine, C. Burnett	Wilmore, Ralph C.
Love, George N.	Wilson, Fred M.
Leiningner, Wilbert A. P.	Wunderlich, Edwin E.
Maschmeyer, Robert H.	

## Graduates of Other Schools

Cahn, Hugo*	Premuda, Franklin F.
Fisher, Henry	Steininger, J. F.
Kveton, Emil N.	Stone, Alvin T.
McGaughey, William M.	Zallen, S. G.
Moss, Selma S.	

\* Dr. Cahn is a graduate of Julius-Maximilian University and repeated the senior year at Indiana University School of Medicine in order to comply with requirements of the Indiana State Board of Medical Registration and Examination for graduates of schools located outside of the United States and its possessions.

## HAY FEVER SUFFERERS MAY ANTICIPATE BAD SEASON

Hay fever sufferers probably will have a bad season this year, in the opinion of Dr. Verne K. Harvey, secretary of the Indiana State Board of Health. The air will be unusually heavily laden with pollen from giant and common rag weeds because of the excellent growing season. Goldenrod also is reported abundant. The hay fever season, as all physicians know, will last until frost.

From the public health point of view, practically nothing can be done, and hay fever remains an individual problem, Dr. Harvey said.

About all that could be done would be a program to eradicate rag weeds and other plants whose pollen produce the discomforts of hay fever, and such a program would be impractical, if not totally impossible, in an area as much under cultivation as the middle western states.

All the public health department can do, Dr. Harvey said, is to urge people afflicted with hay fever to consult their physicians several months ahead of the season to see if they can be controlled. Air conditioning of homes helps materially, but this is out of the economic reach of many people.

## NEW HEAD OF VENEREAL DISEASE BUREAU

Dr. George W. Bowman of Indianapolis has been appointed chief of the Bureau of Venereal Diseases of the Indiana State Board of Health. He succeeds Dr. W. C. Kelly who resigned to become associated with Eli Lilly & Co.

Dr. Bowman, who is a native of Indianapolis, was graduated from the Indiana University School of Medicine in 1912 and received the degree of M.D. cum laude the following year.

During the World War he served in a medical capacity, entering the service as a lieutenant and being advanced to a majority. His work, which was in the United States, was in connection with venereal disease activities of the Army Medical Corps.

Since the war, Dr. Bowman has been active in American Legion affairs and had an important part in obtaining establishment of the Veterans' Hospital in Indianapolis. He is past commander of the Paul Coble post and the Seventh district Legion. He is affiliated with hospital staff associations in Indianapolis and belongs to the American Urological Association, as well as the Indianapolis, Marion County and Indiana and American Medical associations.

## Deaths

EVERETT D. KNIGHT, M.D., widely-known Anderson physician, died suddenly, August fifth, aged thirty-eight years. He graduated from Indiana University School of Medicine in 1925 and had practiced in Anderson eleven years. He was a member of the Madison County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

JAMES H. FARGHER, M.D., a practicing physician of LaPorte for thirty-two years, died suddenly August sixth. He was sixty-four years of age. He graduated from the Chicago Homeopathic Medical College, Chicago, in 1903, and was a member of the LaPorte County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

FRANK M. BIDDLE, M.D., of Battle Ground, died July twenty-seventh, aged sixty-four. He graduated from the Fort Wayne College of Medicine in 1895, and had practiced in Battle Ground since that time. He was a former president and secretary of the Tippecanoe Medical Society, and was serving his second year as Tippecanoe county health officer. He was a member of the Tippecanoe County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

WILLIAM G. FERGUSON, M.D., retired Fort Wayne physician, died at the home of a daughter, in Long Island, N. Y., on July thirty-first. He graduated from the Fort Wayne College of Medicine in 1909.

HENRY C. HOLTZENDORFF, M.D., former Mishawaka physician, died at Osceola, July thirtieth, aged sixty-six years. He graduated from the Medical College of Indiana, Indianapolis, in 1895.

HENRY W. HELD, M.D., of Vincennes, died August ninth, after a brief illness. He was sixty-nine years of age. He graduated from the Medical College of Ohio, Cincinnati, in 1894, and had practiced in Vincennes since that time. He was a member of the Knox County Medical Society, The Indiana State Medical Association, and the American Medical Association.

AUGUST O. TRUELOVE, M.D., aged fifty-seven, retired physician of Fort Wayne, died August seventh after a long illness. After graduation from

the Indiana University School of Medicine in 1915, he practiced in Warsaw for two years. He served with the medical corps of the U. S. Army during the World War and held the rank of lieutenant. After the war, Dr. Truelove moved to Fort Wayne and practiced there until 1932, when ill health forced him to retire. He was a former member of the Allen County Medical Society, the Indiana State Medical Association, and the American Medical Association.

JAMES R. NORREL, M.D., Negro physician of Indianapolis, died July twentieth, aged sixty-four years. He was a graduate of the Cleveland College of Physicians and Surgeons in 1898.

WILLIAM A. FANKBONER, M.D., of Marion, aged seventy-eight years, died July fourteenth. Dr. Fankboner was a graduate of Rush Medical College, University of Chicago, in 1891 and was a member of the Grant County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association. He was a charter member of the Marion Kiwanis Club.

## News Notes

Dr. H. Clair Amstutz has located in Goshen for the general practice of medicine.

Dr. Harry E. Klepinger of Lafayette has been named county health commissioner for Tippecanoe county to succeed the late Dr. F. M. Biddle of Battle Ground. Dr. Biddle's unexpired term is two years.

Dr. Lloyd E. Rosenbaum has completed his medical course and internship and has returned to his home in Anderson where he will begin practice.

Dr. Ralph D. Arnold has purchased the office of Dr. T. N. Siersdorfer of Ligonier, where he will conduct a general practice.

Dr. Richard Callahan has opened an office at 3702 Main Street in Indiana Harbor.

Miss Mildred Low of Royal Center and Dr. W. K. Newcomb of Royal Center were married August fifth.



Miss Catherine Lynch of Indianapolis and Dr. Theodore J. Bruegge of Kokomo were married in Indianapolis, August fifth.

Miss Mary Jane Eckton and Dr. C. Russell La Bier of Terre Haute were married July twenty-fifth.

Dr. Byron Kilgore, Jr., and his family have moved from Indianapolis to Summitville where Dr. Kilgore will practice general medicine.

Dr. Woodrow Murphy has opened an office for general practice in Lagro.

Dr. Basil Merrill, who has been practicing in Indianapolis, has located in Brownstown, where he is occupying the property of the late Dr. C. L. Ackerman. Dr. Merrill has been serving as government physician in a CCC camp.

Dr. A. G. Moore who formerly practiced in Flora has opened an office at Chesterfield.

Dr. Charles W. Roller of Indianapolis piloted his own airplane to New York and Washington in July.

The Muncie Clinic, located at 420 West Washington Street, has been opened by Drs. M. G. Schulof, L. C. Garling, and M. P. Smith.

Mier S. Bizer, M.D., has opened an office in Williamsport where he will conduct a general practice.

Marshall I. Hewitt, M.D., has opened offices at 429 Sherland Building, South Bend, for the practice of general medicine and surgery.

Dr. A. B. Richter of Flora has sold his practice to Dr. M. R. Adams of Monroeville. Dr. Richter expects to go to Boston, September first, where he will take postgraduate work at Harvard Medical School, after which he probably will locate in Indianapolis.

Dr. and Mrs. Darrell Overpeck have located in Evansville where Dr. Overpeck will specialize in orthopedics. Dr. Overpeck recently completed a fellowship at the Mayo Clinic.

Dr. Isidor Raphael of Evansville had his automobile stolen, August third, and with it were taken his obstetric kit, an emergency kit, and his regular medical kit.

Dr. Charles W. Holland, Dr. Robert Speas and Dr. Edith Schuman have been named by Dean W. D. Gatch to serve as physicians for the student health service at Indiana University in Bloomington.

Dr. James F. Reilly who has practiced medicine in Vincennes for several years has accepted a first lieutenant's commission in the Army Medical Corps and has given up his practice at Vincennes. Dr. Reilly's first assignment is at Fort Benjamin Harrison.

Dr. Paul Sparks has located in Winchester, where he will begin general practice. Dr. Sparks recently completed his internship at the Ball Memorial hospital in Muncie.

Dr. George W. Bowman of Indianapolis has been named chief of the Bureau of Venereal Diseases for the Indiana State Board of Health. He succeeds Dr. Wendell C. Kelly who has resigned to become associated with Eli Lilly & Company.

Dr. Ernest Oppenheimer who has been on the staff of the Logansport State Hospital since last February, has opened an office in Kokomo for private practice.

Dr. Donald A. R. Morrison, formerly Rockefeller Fellow at the Pennsylvania Hospital for Mental and Nervous Diseases, and for the past two years instructor in psychiatry at the University of Chicago Medical School, has joined the staff of the Rogers Memorial Sanitarium, Oconomowoc, Wisconsin.

All officers of the Indianapolis City Board of Health have been re-elected for another year and executives of the City Hospital were reappointed at the July meeting. Dr. George W. Kohlstaedt is board president; Frank Laird is vice-president; Dr. Herman G. Morgan was reappointed secretary for the 28th consecutive year; Dr. Charles W. Myers is superintendent of the City Hospital, and Earl C. Wolf was reappointed business manager for the hospital. Since this appointment, Mr. Wolf has resigned to accept a position in Rochester, Minnesota; he will be succeeded by Mr. A. F. Walsman.

Paoli now has a hospital. Dr. Ivan A. Clark has had constructed a building to serve as a hospital and for his private offices. The building has twenty-two rooms with two wards of three beds each, two private rooms, labor and delivery rooms, nursery, private offices, reception room, drug room, x-ray rooms, and service rooms.

The twelfth graduate fortnight of the New York Academy of Medicine will be held October 23 to November 3, 1939. The subject this year will be "The Endocrine Glands and Their Disorders." Registration is limited to the medical profession. Details may be obtained by writing to The New York Academy of Medicine, 2 East 103rd Street, New York City.

The fifth annual meeting of the Mississippi Valley Medical Society will be held in the municipal auditorium at Burlington, Iowa, September 27, 28, 29. Detailed program may be secured from Dr. Harold Swanberg, secretary, 209 W. C. U. Building, Quincy, Illinois.

Dr. J. W. Clifford of Worthington was honored at a picnic dinner, August sixth, when the invited guests included all the babies, approximately 3,000, that the doctor has delivered, together with their families and other friends of the doctor. Special guests were members of the Green County Medical Society of which Dr. Clifford is an honorary member. Newspapers reported an estimated 2,500 persons attended the picnic. Among those present were Dr. Clifford's oldest "baby"—46 years old, and the youngest—one week old.

Mr. Earl C. Wolf, business manager of the Indianapolis City hospital, has resigned to accept a position at Rochester, Minnesota, where he will become the business manager of St. Mary's Hospital at Rochester and St. Theresa College Hospital at Winona, Minnesota. Mr. Wolf is president of the Indiana Hospital Association and chairman of the Governor's committee to study nonprofit group hospitalization. Mr. Wolf's successor at the Indianapolis hospital is Mr. Albert F. Walsman, who has been business director of the Indianapolis public schools and since 1937 has been in business for himself as a tax advisor. Mr. Wolf's appointment is a promotion which constitutes national recognition of his administration of the Indianapolis hospital's business affairs.

#### PUBLISHING HOUSE CHANGES OWNERS

The publishing house of P. Blakiston's Son & Company, Inc., specializing in scientific and medical books, has been purchased by Horace G. White from the executors of the estate of Kenneth M. Blakiston. This business was established by Presley Blakiston in 1843, and was continuously in the Blakiston family until the death of Kenneth M. Blakiston in 1937. The policies of this old established concern will be carried on by Mr. White who has been connected with the company for more than twenty-eight years. The name of the company will be The Blakiston Company.

#### McNUTT NEW FEDERAL SECURITY ADMINISTRATOR

Paul V. McNutt, Indiana's former governor, has been named by President Roosevelt as Federal Security Administrator to head the various phases of the social security work. The social security program, administered in cooperation with state agencies, is now under Governor McNutt's supervision and he will direct the work of the Social Security Board, the Children's Bureau, the Public Health Service, and the Office of Education. In turn, these agencies of the social security province control federal old-age insurance, unemployment compensation, old-age assistance, aid to the blind, aid to dependent children, maternal and child health services, aid to crippled children, extension of public health services, and vocational rehabilitation. The August 7, 1939, issue of *Life* magazine, carrying Governor McNutt's picture on the cover, says that, "Reportedly, he plans to concentrate his efforts on putting over a great new national health program."

#### ST. JOSEPH COUNTY'S EXECUTIVE SECRETARY

Mr. Paul R. Waddell has recently been employed to serve as executive secretary for the St. Joseph County Medical Society. He is really Paul R.



Paul Waddell

Waddell, B.A., B.S., M.A., the first two degrees given him by Duquesne University and the last by Notre Dame. He has a year of graduate work on his Ph.D. degree to his credit at the University of Pittsburgh. In school, he says, his chief interests were literature, philosophy, economics, history—and a brunette who has since married a doctor.

He finds now that he is married to a county of doctors! He has had experience in editorial work and in the production of radio programs. He has worked as copywriter and account executive with advertising agencies in New York, Boston, Chicago, and Pittsburgh and as advertising manager for a hotel company. He has found that his present job is a twenty-four-hour-a-day one, but he believes it is his kind of work, and his aim at present is to "help medicine to help itself and the people it unselfishly serves." Good luck, Mr. Waddell!

The National Cancer Institute of the United States Public Health Service has arranged for the loan of about eight and one-half grams of government-owned radium, which is valued at \$180,000, to some twenty states which already have made application for it. Indiana is one of the states which as yet has not made application for a radium loan. Requests for this service should be made directly to the United States Public Health Service.



Among the requirements are that the loans shall be made to hospitals and institutions, and not to individual physicians. The Institute has found that the need for the free use of this radium is much greater in some areas of the country than others, although it is patent that all communities could use the radium to advantage if they had it. It is stated that only about 133 grams of radium are in use in the United States at the present time, though authorities agree that there should be a minimum of two grams of radium for every one million persons. There remain about 1300 milligrams of radium which has not been allotted on a loan basis, and Indiana institutions that might be interested in obtaining such a loan should write to the National Cancer Institute, United States Public Health Service, Washington, D.C.

#### SHORT COURSES IN TUBERCULOSIS FOR PHYSICIANS

The Indiana Tuberculosis Association again offers short courses in tuberculosis to the physicians of Indiana. In order to make it possible for the physicians to attend these courses without much loss of time, several sanatoria of the state will be used as teaching centers for the physicians in that vicinity. However, any one wishing to attend the course may select any place preferred. Only one afternoon and evening will be devoted to the work.

The purpose of the course is to acquaint the physicians with recent progress in the treatment of tuberculosis.

The institute will follow the round table method, each topic being presented briefly by the instructor, allowing most of the period to be devoted to questions and answers. In addition, part of the time will be devoted to clinics and demonstrations. Splendid clinical material for the work will be available. The program is as follows:

- 1:00 p.m. 1. General Management of Tuberculosis  
to  
5:00 p.m. Designed to assist the doctor in the management of the patient in the home; also after the patient is discharged from the sanatorium.
2. Diagnosis of Tuberculosis
3. Round Table Discussion of Diagnosis and Treatment  
A. Discussion of most recent methods of diagnosis
4. Differential Diagnosis  
A. Demonstration of diseases apt to be confused with tuberculosis
5. X-ray Interpretation of Chest Lesions  
A. Demonstration of Typical Cases
6. Laboratory Aids—Their Value  
A. Tuberculin Test  
B. Sedimentation Rate  
C. Sputum  
D. Blood Count
7. Surgical Procedures  
A. Collapse Therapy  
B. Phrenic Nerve Operation  
C. Thoracoplasty
8. Clinics
- 6:00 p.m. Dinner—Followed by Evening Session

The short course will be held at the following institutions on the dates indicated:

- Hillcrest Tuberculosis Hospital, Vincennes, September 28.  
Boehne Tuberculosis Hospital, Evansville, October 17.  
William Ross Sanatorium, Lafayette, October 17.  
Healthwin Sanatorium, South Bend, October 18  
Indiana State Sanatorium, Rockville, October 20  
Sunnyside Sanatorium, Indianapolis, October 25  
Lake County Tuberculosis Sanatorium, Crown Point, November 9  
Smith-Esteb Memorial Hospital, Richmond, November 9  
Irene Byron Sanatorium, Ft. Wayne, November 14

There will be no fee attached to the course, which is being presented as an aid to the medical profession.

Further information will be supplied upon request by the Indiana Tuberculosis Association, 1219 Security Trust Building, Indianapolis.

#### INTERSTATE POSTGRADUATE MEETING TO BE HELD IN CHICAGO

This year's International Assembly of the Interstate Postgraduate Medical Association of North America will be held in the Palmer House, Chicago, Illinois, October 30 to November 3.

The Association, through its officers and members of the program committee, extends a very cordial invitation to all physicians in good standing in their State and Provincial Medical Societies to attend.

The members of the profession are urged to bring their ladies with them as a very excellent program is being arranged for their benefit by the Ladies' Committee.

The Chicago Medical Society will be host to the Assembly and has arranged an excellent list of committees who will function throughout the Assembly. The following are the chairmen of the various committees:

Dr. James B. Herrick, Professor Emeritus of Medicine, Rush Medical College—Honorary Chairman.

Dr. Robert H. Hayes—General Chairman.

Dr. Arthur H. Curtis, Professor of Obstetrics and Gynecology, Northwestern University School of Medicine—Vice-Chairman.

Dr. Nathan S. Davis, III, Assistant Professor of Medicine, Northwestern University School of Medicine; President of Chicago Medical Society—Chairman, Executive Committee.

Dr. Frank F. Maple, Secretary of Chicago Medical Society, Chairman, Clinic Committee.

Dr. W. O. Thompson, Associate Clinical Professor of Medicine, Rush Medical College—Chairman, Speakers Committee.

Dr. H. P. Saunders—Chairman, Publicity Committee.

Dr. J. P. O'Neil—Chairman, Hotel Committee.

Dr. George W. Post, Jr.—Chairman, Reception Committee.

Mrs. Frank G. Murphy—Chairman, Ladies' Committee.

The stage is being set for an intensive week of postgraduate medical instruction which is bound to contribute a great deal of valuable scientific and clinical knowledge to the medical profession of North America.

The program which has been arranged by the program committee is most excellent and meets the requirements of the general practitioner, as well as the specialist. It consists of in the neighborhood of eighty clinics and addresses covering the latest advancements in medical science. The contributors have been selected from among outstanding teachers and clinicians of North America.

The registration fee of \$5.00 admits all members of the profession in good standing.

Pre-assembly and post-assembly clinics will be conducted in the Chicago hospitals the Saturdays previous and following the Assembly for visiting members of the profession.

A list of the teachers and clinicians who are to take part on the program appears on page xxxvi of the advertising section of this JOURNAL.

Dr. George W. Crile, President,  
Cleveland, Ohio.

Dr. Chevalier Jackson, President-elect,  
Philadelphia, Pa.

Dr. William B. Peck, Managing-Director,  
Freeport, Illinois.

#### CLINICAL ELECTROCHEMICAL AND THEORETICAL CONSIDERATIONS OF ELECTROPHYSICAL PHENOMENA W. L. Green, M.D.

(Continued from page 474)

of the work of Lawrence<sup>5</sup> to say, "I think the greatest discovery of the past year, which gives promise for the future of medicine is Lawrence's cyclotron, which makes possible the production of many temporarily radioactive elements. Such elements can be followed through the body with the greatest ease, so that the experimenter can say how much is excreted every day and how much is held back in the several organs of the body.

"Such analyses can be made even when only a few milligrams of some chemical are ingested. With the help of these 'tagged' molecules, a new science of biochemistry will be developed and answers to

age-old questions will soon be obtained. We will soon know the rate of turnover of the various chemicals of the body.

"These new radioactive substances can be used also to administer a tremendous blow to all of the organs that are forming abnormal cells as in cases of leukemia, or they will seek out every single carcinomatous metastasis in the body to injure it."

In the cyclotron heavy hydrogen nuclei are stepped up to speeds approximating five million volts and are then directed against the various elements which in turn become temporarily radio-activated. In a recent publication, J. H. Lawrence<sup>6</sup> lists thirty-four elements ranging in atomic number from six to eighty-three and having a half-life of from 2.1 minutes for oxygen to three years for sodium and cobalt.

The nuclei of all atoms are made up of protons and neutrons closely bound together. The proton, which is the nucleus of the hydrogen atom, has a charge of one and a weight of one. The neutron has no charge but has the same weight as the proton. Atoms are built up of protons and neutrons but the number of protons, or the charge carried, is the factor determining the element. Neutrons may be added or subtracted without changing the chemical nature of the atom so long as the charge remains unchanged. Thus it is that the very nature of the elements is dependent upon their charge.

Neutron rays, interestingly enough, penetrate lead more readily than human tissue due to the presence of hydrogen in tissue which causes ionization from secondary recoil protons. This ionization is more intense than that caused by x-rays and may be of considerable importance in the future treatment of neoplasms.<sup>7</sup>

It is with these discoveries in mind, coupled with the fact that even so simple an electro-negative dye as Congo Red will, in some instances, slow the progress of malignant growth that the author feels secure in saying that the future of medicine definitely lies in the fields of electrochemistry and electro-physics.

#### SUMMARY

1. The theory is advanced that all pathological changes are due to disturbances in electrical potential of the individual cell.
2. That the effectiveness of certain of the newer chemotherapeutic agents such as Congo Red and sulfanilamide is due to their electro-negative nature.
3. That selective activity of artificially radio-activated elements may bring solution to the problem of neoplastic disease.

<sup>5</sup> Lawrence, J. H.: Handbook of Physical Therapy, A. M. A., 1938.

<sup>7</sup> Zirkle, R. E. and Lampe, I.: Differences in the Relative Action of Neutrons and Roentgen Rays on Closely Related Tissues—*Am. J. Roentgenol.* **39**, 613-627 (April) 1938.

<sup>6</sup> Lawrence, E. O. and Cooksey, D.: On the Apparatus for the Multiple Acceleration of Light Ions to High Speeds. *Phys. Review.* **50** p. 1131-1140—1936.



# WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

*Here glowed the apple with the  
pencilled streak  
Of morning painted on its  
southern cheek.*

—OLIVER WENDELL HOLMES, M.D.

If you were far from your debtors; no Hoosier letters; 'nor seen by your betters," yours was an ideal vacation.

Now for a year of study and service. For, "How dull it is to pause, to make an end,

To rust unburnished, not to shine in use."

Fort Wayne invites you, October 10-12.

Every doctor's wife is urged to make reservations at once for the Auxiliary breakfast, Wednesday morning. Dr. Edgar Kiser will be guest speaker.

The Hoosier News Letter will be issued September 15th and will contain complete program.

To see America's newest memorial to Abraham Lincoln is worthwhile. This heroic bronze statue, "Lincoln as a Youth" was executed for the Plaza of the Lincoln National Life Insurance Building by the famous sculptor, Paul Manship.

Mr. Manship said: "The desire to represent young Lincoln at the age of 21 as a dreamer and a poet rather than as the rail splitter was uppermost in my mind. These qualities were selected as being most important in view of the greatness of his later accomplishments, and without which the idealism and clarity of his future would never have been possible.

"Everyone has heard or read stories of Lincoln's youthful prowess, and so we have depicted Lincoln as the brawny youth that he was. The axe tells the story of his rail splitting days. The book symbolizes his intellectual faculties; and the dog reminds us of his exceptional love of animals as well as the greater feeling of human sympathy and protectiveness. His clothes I decided to make to represent linsey-woolsey home made shirt, buckskin trousers, and boots."

Mr. Manship divided his time on this statue between his studio in New York and Paris, and when the plaster model was finally completed, he personally supervised the bronze casting done in Brussels.

Mrs. Rollo Packard, Chicago, is our national president. The meeting next year is to be in New York City.

Indiana Auxiliary was highly honored by the election of our State President, Mrs. Maurice B. VanCleave, as national third vice-president.

Dr. Rock Sleyster, president of A. M. A., spoke at the annual luncheon in St. Louis; his subject was "The Doctor's Wife."

"Nothing—and I say this without the slightest mental reservation—*nothing* is as important in shaping the doctor's career as is his wife and his home. The doctor's wife must share his idealism, appreciate a standard of values held by no other group, and give to him an understanding required of few. Being a doctor's wife is both an art and a career."

Topic of the month—Nervous and Mental Diseases.

This topic is of more than ordinary interest to every woman and especially mothers. To forecast that this field of study and research will be given first place in the next half century is not a false prophecy. The times demand it.

"The roots of all maladjustments, according to a noted psychiatrist, lie in the family, not in the individual."

—Hygeia, May, 1939.

"Alcoholism may be a symptom of other psychoses but in itself it accounts for five to ten percent of all mental diseases," (p. 216)—Strecker-Ebaugh.

"Education of the general public to recognize and consider seriously early manifestations of mental deviations in another principle he advocated. Most parents, he pointed out, fail to take notice when their children

Continued on Page xxx

## PROFESSIONAL PROTECTION



### A DOCTOR SAYS:

*"As you know, the judge and jury found in our favor. I have appreciated the booklets and advice that your company has sent me from time to time. This case, also, has been a lesson to me in many ways. Many thanks for the protective insurance you have so ably given me."*

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**MEDICAL PROTECTIVE COMPANY**

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## PHYSICIANS CASUALTY ASSOCIATION PHYSICIANS HEALTH ASSOCIATION



HOSPITAL  
ACCIDENT  
SICKNESS

INSURANCE



*For ethical practitioners exclusively*  
**(50,000 POLICIES IN FORCE)**

Liberal Hospital Expense Coverage for \$10.00 Per Year

\$5,000.00 accidental death	For
\$25.00 weekly indemnity, accident and sickness	\$33.00 per year

\$10,000.00 accidental death	For
\$50.00 weekly indemnity, accident and sickness	\$66.00 per year

\$15,000.00 accidental death	For
\$75.00 weekly indemnity, accident and sickness	\$99.00 per year

*37 years under same management*

**\$1,700,000 INVESTED ASSETS  
\$9,000,000 PAID FOR CLAIMS**

\$200,000 deposited with State of Nebraska for protection of our members.

*Disability need not be incurred in line of duty—  
benefits from the beginning day of disability*

*Send for applications, Doctor, to*

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## Wishing You a Successful Convention

### FORT WAYNE DRUG COMPANY

#### Woman's Auxiliary—Continued from Page xxix

develop such symptoms as pronounced shyness, bullying of younger children, or the constant attempt to show off by sulking when not occupying the center of the stage.

"All of these symptoms may mark the beginnings of serious mental maladjustments and should awaken as much concern as pain, fever and the signs of physical illness."

—Clarence M. Hincks, General Director,  
National Committee for Mental Hygiene.

Madison County Auxiliary—Officers for 1939-40.

President—Mrs. C. V. Rozelle.

First V-P—Mrs. M. C. Wells.

Second V-P—Mrs. J. W. King.

Third V-P—Mrs. C. L. Wilson.

Recording Secretary—Mrs. G. S. Moore.

Treasurer—Mrs. G. E. Ross.

Corresponding Secretary—Mrs. Florence Smith.

Historian—Mrs. M. A. Austin.

President-elect—Mrs. Fred B. Wishard.

Vigo County Medical Auxiliary has enjoyed a very successful year. Our main objective has been the establishment of occupational therapy at Union and St. Anthony's hospitals.

This work has been financed by the sale of dolls made and donated by Mrs. L. A. Malone, a member.

The auxiliary has received as a gift a painting which was painted by Jane Kimball Yung (Mrs. J. R.), who is a member of the auxiliary. This gift is to be used as a prize at our November bridge and is to help finance occupational therapy.

MRS. W. F. HUGHES,

*Press & Publicity Chairman.*

4025 N. Meridian St., Indianapolis.

## Enroll Now

### TWO WEEKS POSTGRADUATE COURSES IN OBSTETRICS

Indiana University School of Medicine  
SEPTEMBER TO MAY, INCLUSIVE

For details, address the Bureau of Maternal and Child Health, Indiana State Board of Health; or the headquarters office, Indiana State Medical Association, 1021 Hume-Mansur Building, Indianapolis.

## BOOKS

### BOOKS RECEIVED

**CARDIOVASCULAR DISEASES. THEIR DIAGNOSIS AND TREATMENT.** By David Scherf, M.D., and Linn J. Boyd, M.D., F.A.C.P., Associate Professor of Clinical Medicine and Professor of Medicine, respectively, New York Medical College, and Flower and Fifth Avenue Hospitals. 458 pages. Cloth. The C. V. Mosby Company, St. Louis, 1939.

\* \* \*

**THE ART OF ANESTHESIA.** By Paluel J. Flagg, M.D., visiting anesthetist to St. Vincent's Hospital, New York, etc., and chairman of committee on asphyxia of the American Medical Association. Sixth edition, revised. 491 pages with 161 illustrations. Cloth. J. B. Lippincott Company, Philadelphia and London, 1939.

\* \* \*

**OTOLARYNGOLOGY IN GENERAL PRACTICE.** Lyman G. Richards, M.D., assistant in surgery, Harvard Medical School; associate professor of otolaryngology, Tufts Medical School; otolaryngological surgeon, Peter Bent Brigham Hospital, Boston. Foreword by D. Harold Walker, M.D., professor emeritus of otology, Harvard Medical School. 352 pages with 72 illustrations. Cloth. Price \$6.00. The Macmillan Company, New York, 1939.

\* \* \*

**SURGERY OF THE EYE.** By Meyer Wiener, M.D., professor of clinical ophthalmology, Washington University School of Medicine, St. Louis; and Bennett Y. Alvis, M.D., assistant professor of clinical ophthalmology, Washington University School of Medicine, St. Louis. 445 pages with 396 illustrations. Cloth. Price \$8.50. W. B. Saunders Company, Philadelphia and London, 1939.

\* \* \*

**FUNCTIONAL DISORDERS OF THE FOOT.** By Frank D. Dickson, M.D., Orthopedic surgeon, St. Luke's and other hospitals in Kansas City; and Rex L. Diveley, M.D., orthopedic surgeon, St. Luke's and other Kansas City hospitals. 305 pages with 202 illustrations. Cloth. Price, \$5.00. J. B. Lippincott Company, Philadelphia and London, 1939.

# Baltes Hotel Welcomes You

Rates With Bath—\$1.50-\$2.50

BERRY and HARRISON STS.

FORT WAYNE



# Thank you, Doctor...

*for recommending Stokely's Baby Foods*



Stokely Brothers and Company, an Indiana institution, are happy to bring you this neighborly greeting, on the occasion of your 90th Annual Convention.

Thank you for recommending Stokely's Baby Foods. We know that the mothers to whom you recommended Stokely's will thank you, too, for these two very good reasons.

First, they appreciate how eagerly babies take these foods during the early months. This is because their garden-fresh flavor and high food value are retained by a special comminuting process. This Stokely process, safeguarded at every step, preserves the natural color

and flavor of the vegetable, provides a smooth, uniform texture, easily assimilated and easily digested, and guards against loss of vitamins and mineral values.

Second, mothers who feed Stokely's Baby Foods find little difficulty in getting babies to eat second year foods. The natural, garden-fresh flavor of Stokely's is so similar to the regular flavor of fresh vegetables that babies' tastes are trained, **naturally**, to relish the flavor of grown-up foods.

May we suggest you thoroughly familiarize yourself with the appetizing flavor of Stokely's Baby Foods. Notice their uniform texture and inviting color. Remember, too, that Stokely's have a complete variety, to meet every feeding need. Stokely Bros. & Co., Indianapolis, Indiana.

## A COMPLETE VARIETY FOR BABY'S NEEDS

Vegetable Soup	Beets	Prunes
Spinach	Green Beans	Liver Soup
Carrots	Tomatoes	Beef Broth
Peas	Apricots	Unstrained
Cereal	Apple Sauce	Vegetable Soup



# Stokely's BABY FOODS

# CHICAGO TUMOR INSTITUTE

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Henri Coutard, M.D.

Arthur H. Compton, Ph.D.  
Ludvig Hektoen, M.D.

The Chicago Tumor Institute offers consultation service to physicians and radiation facilities to patients suffering from neoplastic diseases. Graduate instruction in radiotherapy is offered to qualified physicians.

### The Radiation Equipment Includes:

One 220 k.v. x-ray apparatus  
One 400 k.v. x-ray apparatus  
One 500 k.v. x-ray apparatus  
One 10 gram radium bomb.

## ABSTRACT

### THE IMPORTANCE OF BEING ALONE

It is important to the child's emotional stability that he have some opportunity to commune with himself. If it is not possible to give him a room of his own, there should at least be one where he can go to be alone. In addition he should have a desk or table, some place absolutely free from prying eyes, where he can keep his most dearly beloved possessions.—*Hygeia*.

### STATE BOARD OF HEALTH TO SEND BOOKLET ON "GONOCOCCUS AND GONOCOCCAL INFECTIONS" TO REGISTRANTS AT STATE MEETING

The Indiana State Board of Health is requesting physicians to register at the Indiana State Medical Association Meeting, October 9-12, to receive supplement number 8 to "Venereal Disease Information" on "The Gonococcus and Gonococcal Infections." This publication will be sent free by the State Board of Health to all physicians who register for this interesting booklet. It was prepared by Ruth Boring Thomas, M.D., American Neisserian Medical Society, in cooperation with the United States Public Health Service.

## TRICHOMONADS IN THE VAGINAL SMEAR

## SILVER PICRATE

*Wyeth*



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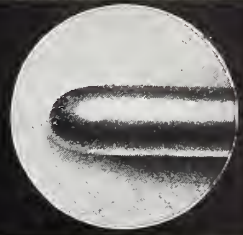


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INDIANA STATE BOARD OF HEALTH  
BUREAU OF COMMUNICABLE DISEASES  
Monthly Report, June, 1939

DISEASES	June 1939	May 1939	April 1939	June 1938	June 1937
Tuberculosis .....	157	160	240	159	247
Chicken Pox .....	133	285	386	150	139
Measles .....	33	57	100	898	2148
Scarlet Fever .....	232	560	961	190	320
Smallpox .....	49	141	220	105	61
Typhoid Fever .....	16	11	6	23	9
Whooping Cough .....	258	250	245	72	297
Diphtheria .....	19	30	46	38	29
Influenza .....	14	55	330	13	39
Pneumonia .....	26	40	132	53	69
Mumps .....	92	361	270	52	73
Poliomyelitis .....	2	0	0	0	0
Meningitis .....	2	1	4	3	7
Malaria .....	3	1	0	0	2
Undulant Fever .....	5	3	5	3	0
Encephalitis .....	2	0	0	0	0
Septic Sore Throat .....	1	1	2	0	1
Rocky Mountain Spotted Fever .....	3	0	0	0	0

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### THE TUBERCULOSIS OUTLOOK

P. H. BECKER, M.D.

Crown Point

Before looking ahead, let us briefly review what has been accomplished since the beginning of the century or, better still, since the discovery by Robert Koch in 1882 of the tubercle bacillus as the direct and only cause of tuberculosis. Not until the National Tuberculosis Association was founded in 1904 were any organized efforts made to control this dread disease which in 1900 killed 200 out of every 100,000 persons in this country. During the succeeding years an ever increasing campaign, combined with improved methods of treatment, lowered this figure to a relatively low rate of 50 per 100,000 persons. But a disease which still kills approximately 60,000 people annually, and which disables several hundred thousand more, is far from under control, and urges us to strive harder to attain a goal of complete eradication of the disease in this country.

Barring the discovery of an immunization drug which would revolutionize the treatment of tuberculosis and control the disease in a relatively short time, our present methods, if made more effective, would ultimately bring the disease under control. Since the control of tuberculosis in this country depends upon an adequate community program, it is necessary to have cooperation among the National Tuberculosis Association, the medical profession, the sanatorium staff (if there is one), and the social welfare groups in any given locale.

Assuming such cooperation, what part should each organization have in this work?

In too many communities, the tuberculosis association is a pamphlet-dealing, stamp-selling, ineffectual organization. The greatest aid that this organization can give to make the public tuberculosis conscious is to educate them (by means of lectures, distribution of literature, and motion pictures) to the early manifestations of the disease, to the treacherous, insidious onset of the disease, to the importance of early diagnosis, to the importance of early medical consultation, to the need of frequent "check-up" examinations after

contact, and to the fact that it is a communicable disease. It is a known fact that tuberculosis is prevalent in large and small industries, and more so in those industries having a low income group. The problem of reaching this group and spreading tuberculosis propaganda has not been faced and yet industry today recognizes the value of health, strives to maintain health standards, and welcomes aid in controlling tuberculosis among its workers. It behooves every conscientious tuberculosis social worker to contact industrial leaders, take motion pictures and sponsor short talks within industrial walls, and though we will continue to find many cases of far advanced tuberculosis among industrial groups, so, too, will we notice a gradual increase in the number of minimal cases.

Health is becoming an integral part of the school curriculum and because the young men and women in high school and college give us ready-made and eager audiences who can be approached with ease, the tuberculosis association must continue to make this a "number one step" on their program. Much tuberculosis in middle and late life could be avoided by attacking it at this age. These children will act as disciples in carrying the tuberculosis program back to their homes in which many of the foreign born parents do not understand our language and would not be contacted in any other way.

It is necessary for the tuberculosis association worker to prepare the way for mass tuberculin testing of school children which is becoming more and more a feature of a good tuberculosis program.

This paper cannot begin to enumerate all phases of the tuberculosis association's work, but in the writer's own community, the association provides a nurse to work with the sanatorium clinic nurses in visiting patients, urging all contacts to report, and lending aid to families of the afflicted. This gives the public a concrete example of the expenditure of the seal-sale funds. Even where there are no sanatoria, this policy could be carried out with

the cooperation of the local medical society. It does create good will and is good publicity for the furtherance of tuberculosis work in the community.

Efforts to control a disease will not be successful without the full support of the medical profession. This group must be the foundation upon which the health program is built. There are two fundamental factors in the control of tuberculosis: first, the finding of cases, and, second, the prevention of spread to others. It is not necessary to mention the importance of finding cases in the early stages of disease, before there is an opportunity to infect others and when the probability of healing is most favorable. Records prove conclusively that 80% of patients admitted to our sanatoria are in the advanced stages of the disease. It is folly to blame the profession for this situation for a great many of these patients do not present themselves for diagnosis until the disease is well established. But what of the small percent of this group who had consulted a doctor several times during the previous year and tuberculosis was overlooked? Too often cases drift along as a bronchitis following a severe cold or influenza, too often a chest examination is not made, too often the doctor is a close friend of the family and thinks that John or Mary could not possibly have tuberculosis.

It is also apparent from statistics that the mortality rate of tuberculosis is abnormally high in young women between the ages of 20 and 29 years, in young men in industry between the ages of 18 and 40 years, and in older people above 70 years of age. Knowing this, let us concentrate our attention more to these age groups and unquestionably our efforts will pay dividends.

Furthermore, surveys reveal the prevalence of tuberculosis in certain geographical areas in this country. Would it not be expedient for the physicians in these locales to increase their efforts to control the disease?

Though many people cannot afford to have x-rays of the lungs, a wider and more extensive use of the inexpensive tuberculin and sputum tests would reduce the number needing x-rays and would solve the diagnosis in many cases.

The slogan of the sanatoria should be "a bed for every active case of tuberculosis," and though the number of beds has increased year by year, there is still far from an adequate supply for the known cases of tuberculosis. Undoubtedly, as the number of beds approaches the total number of known tuberculosis patients, the incidence and mortality rate of tuberculosis will be diminished.

Improved methods of treatment have done much in recent years to lower the mortality rate; as one expert phrased it "collapse therapy is to the tuberculous as insulin is to the diabetic."

Another phase in tuberculosis control that is receiving more and more attention in our sanatoria is the restoration to economic usefulness of those whose disease has been arrested. Unless more universal efforts are made to train expatrients for

suitable jobs with a living wage, the number of re-admissions to our hospitals is not going to be appreciably lowered.

Since it is self evident that social economic factors play such an important part in the control of tuberculosis, it is important that there should be a greater degree of cooperation among specific tuberculosis control groups and the various other social welfare groups to bring about rehabilitation of the worker when necessary, better housing conditions and improved working conditions, which means an alert enforcement of health standards and the goal of a living wage. The social worker, in general, has access to the homes of the low income groups and these workers are to be encouraged in their practice of recommending and providing for an early diagnosis of a complaining client who felt he could not afford a doctor's services.

In a tuberculosis program, the Negro race merits special attention. It forms about 1/10 of the population, and the tuberculosis death rate is three times that of the white race. A control program in the colored race constitutes a major problem in the larger cities, where large numbers are poorly housed and poorly nourished. The factors causing a decline of the death rate in white persons have caused a decline at approximately the same ratio in the Negro race and this encouraging result should lead us to renewed efforts to eradicate the disease in that race.

Because of our past experiences and because of the ever-increasing interest shown in this problem, we can look into the future with a feeling of optimism that tuberculosis can and will be brought under control, as have other communicable diseases.

#### SUMMARY

Tuberculosis control depends upon an adequate community program:

1. Closer cooperation among the medical profession, the tuberculosis association, and the social welfare groups.
2. Proper education of the public.
3. Increased efforts for an early diagnosis.
4. More hospital beds to allow for a more complete segregation of patients.
5. Improved housing and working conditions.
6. Special effort to control the disease in the Negro race.
7. Rehabilitation of the patient.

#### FATIGUE HAS SEVERAL CAUSES

Not all fatigue is muscular. The cause may be laziness or boredom or emotion, in which case a little recreational activity outdoors in pleasant company will be a distinct relief.

Other causes of fatigue besides muscular exertion include nutritional deficiencies, tuberculosis and foci of infection in tonsils, sinus or teeth.—*Hygieia, The Health Magazine.*



## TUBERCULOSIS AFTER FORTY-FIVE IN INDIANA

FRANK L. JENNINGS, M.D.

Indianapolis

A general impression held by the medical profession and the laity is that tuberculosis among older people is almost non-existent. This impression has been enhanced by the fact that in years gone by so many persons died in the younger age groups and also by the great emphasis more recently placed on mass examination of younger people. While it is true that a greater number of persons under forty-five die of tuberculosis than those forty-five years of age and over, the difference is not so great that one is justified in continuing to labor under this erroneous idea.

One of the most encouraging factors of the whole tuberculosis problem has been the marked decrease in the number of deaths from this disease. In 1900 the death rate for all ages in the United States Registration Area for all forms of tuberculosis was 202 per 100,000, while in 1937 this rate was only 53.5 (provisional figure). The State of Indiana has been no exception in this decline, where it is found that the death rate of 1900 was 175.7 per 100,000 and in 1937 it was 47.4. This decrease has been reflected in the older age groups as well as in the younger people. Chart A shows the total number of deaths in persons forty-five years of age and over due to tuberculosis in this state during the past seventeen years (1922-1938). It will be noted that 512 men died in 1922 as compared to 372 in 1938, also that 435 women died in 1922 and only 253 in 1938.

Although there has been a marked decrease in the total number of deaths from tuberculosis in the group of persons over forty-five years of age, further analysis of these figures brings out the fact that the proportion in this age group when considered in relation to the total number of deaths for all ages has not decreased; in fact, there has been a

slight increase. For instance, in 1922 there was a total of 2,619 persons who died in this state from tuberculosis, 947 of them or 36.1% were forty-five years of age and over. In 1938, 625 persons were age forty-five or beyond, but this number was 45.2% of the total deaths of all ages. (Chart B.)

## SEX

Chart B also shows the proportion of deaths by sex in relation to the total number of deaths of the same sex. In 1933 and again in 1938, 50% of all male deaths were in men forty-five years of age and over.

The proportion of women over forty-five years of age who died from tuberculosis has not been since 1922, at least, as high as those under forty-five. The decade between twenty and thirty is the one where the greatest number of deaths occur. However, it will be noted in this chart that there is an upward trend in the deaths among women forty-five years of age and older in the State of Indiana.

When the death rate of the two sexes for all ages is considered, we find that Indiana has been unique in that the rate has been higher for females than for males. That is a condition which, according to Dauer,<sup>1</sup> prevails between 1890 and 1933. Undoubtedly this will be changed when the figures of the 1940 census are available, and it will be found that the male death rate is higher because between 1930 and 1935 there was very little difference between the total deaths of the two sexes for all ages

<sup>1</sup> Dauer, C. C.: Sex Differences in Tuberculosis Mortality in U. S. *American Review of Tuberculosis*, Vol. 37, 1938, p. 435.

Basic material was obtained by the author from the Department of Vital Statistics of the Indiana State Board of Health and the Department of Vital Statistics of the U. S. Census Bureau.

CHART A

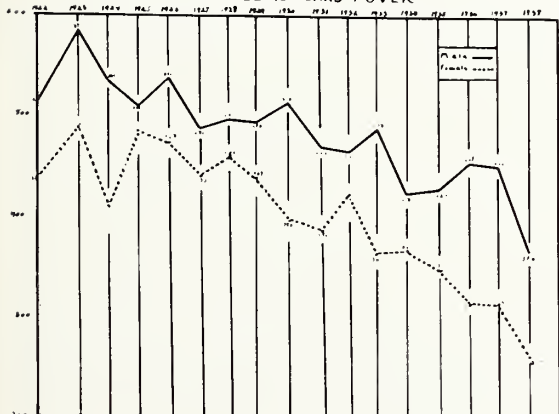
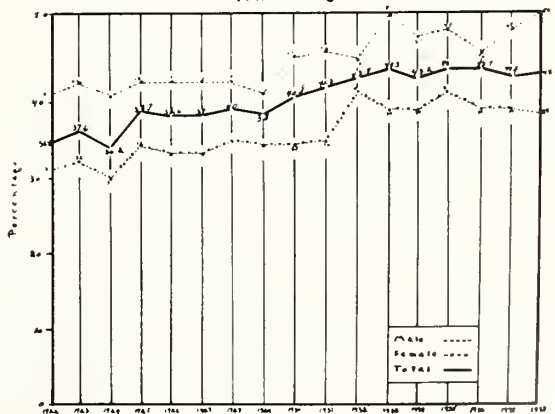
TUBERCULOSIS DEATHS IN INDIANA 1922-1938  
MALE + FEMALE 45 YEARS + OVER

CHART B

TUBERCULOSIS DEATHS — INDIANA  
PERCENTAGE — 45 YEARS + OVER  
1922-1938

**TABLE I**  
**Tuberculosis Deaths in Indiana**  
**Age Groups Over 45**  
**1934-1938**

Year	Sex	45-49 Years	50-54 Years	55-59 Years	60-64 Years	65-69 Years	70-74 Years	75-79 Years	80-84 Years	85-89 Years	90-94 Years	95-100 Years	Total
1938	M	67	65	65	49	46	41	25	8	4	1	0	371
	F	33	32	29	41	35	39	22	15	5	2	0	253
1937	M	81	87	70	64	45	42	32	20	3	2	0	446
	F	34	45	34	31	52	33	43	17	11	2	0	302
1936	M	83	61	71	62	53	55	43	15	5	0	0	448
	F	40	38	35	41	42	38	39	22	5	3	0	303
1935	M	83	85	57	51	59	43	32	8	1	1	0	420
	F	47	41	37	47	58	40	52	13	4	1	0	340
1934	M	79	83	59	61	42	48	32	6	6	2	1	419
	F	51	50	32	59	50	50	43	16	6	1	0	358
Totals		598	587	489	506	482	429	363	140	50	15	1	3660
									Males—2104		Females—1556		

and since 1935 the males dying from tuberculosis have definitely exceeded the females.

We find, however, that among those persons forty-five years of age and over the total deaths among men has greatly exceeded those of women since 1922, at least. (Chart A.)

#### CHANGES IN POPULATION

It is perhaps not so surprising that tuberculosis in older persons is increasing when it is brought to mind that in the population as a whole the age groups are changing; i.e., the proportionate number of persons is decreasing in the younger age groups while in the older age groups there are more people. Chart C shows that in 1880, 15.1% of the population in Indiana was over forty-five years of age while in 1930 it was 26.3%. At the 1920 census those over forty-five years of age comprised 24.7% and during the next ten years there was a percentage increase of 6.4% while during a corresponding period (1922-1930) the tuberculosis deaths in this same age group increased 11%, almost twice that of the increase in population.

#### DEATHS BY FIVE YEAR PERIODS

Table I shows the total deaths in Indiana of persons over forty-five years of age for the past five

years. It shows, too, just which quinquennium these persons were in at the time of death. As might be expected, there is a receding total as age progresses. There were, nevertheless, 998 persons seventy years of age or older who died from tuberculosis during this time. This figure is significant enough to make us discard our former impression that tuberculosis does not exist in older people, even in those of seventy years of age and over.

#### TUBERCULOSIS IN THE NEGRO

The tuberculosis death rate among Negroes for all ages has been and is higher than among the whites. In Indiana during the past five years the rate has been around 200 per 100,000 as compared to about 50 per 100,000 for whites.

Six and three-tenths percent of the 3,660 deaths shown in Table I occurred among the Negroes (60 females and 174 males). This is of interest because in the population of the state over forty-five years of age only 2.6% were Negroes according to the 1930 census. This indicates that tuberculosis is a problem among the older Negroes as well as among the older whites.

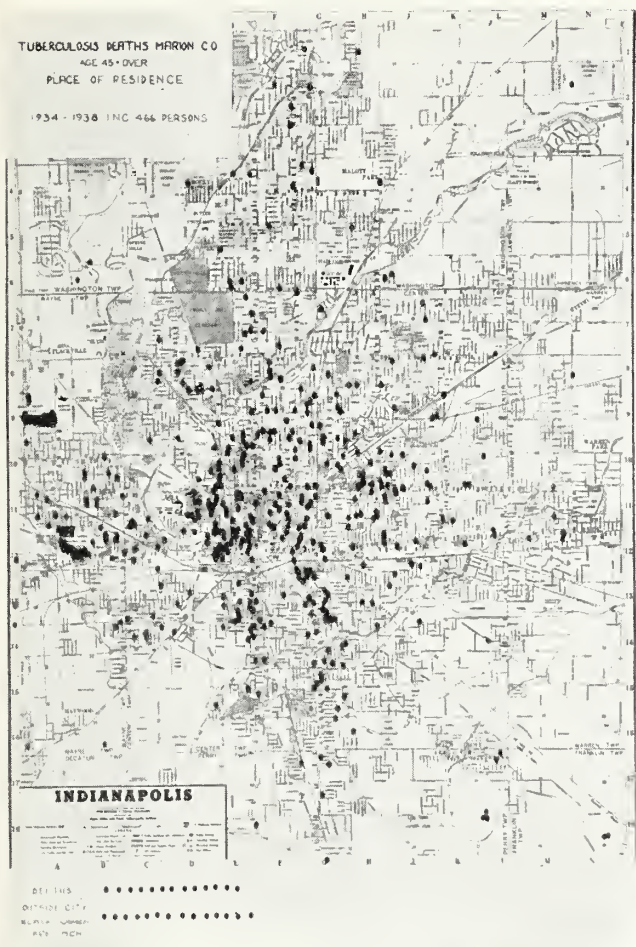
#### OCCUPATIONS

During the past ten years there were 1,001 more men than women beyond the age of forty-five who

**TABLE II**  
**Tuberculosis Deaths by Occupation in Indiana**  
**MALES**

Occupation	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929	Total by Occupation
Professional .....	10	10	14	3	7	11	10	6	12	10	93
Proprietors and Managers.....	14	22	30	19	18	33	35	25	30	31	257
Clerks and Kindred Workers.....	11	17	13	18	19	7	13	4	13	5	120
Agricultural .....	80	82	98	113	110	118	108	118	128	119	1074
Skilled and Foreman.....	68	65	79	71	72	58	74	93	87	79	746
Semi-Skilled .....	18	29	25	17	33	21	22	31	33	31	260
Unskilled .....	102	97	105	101	104	127	123	112	130	150	1151
No Record.....	68	74	85	70	53	79	57	53	52	56	647
											4348
<b>FEMALES</b>											
Professional .....	6	3	8	4	5	6	6	9	3	5	55
Skilled .....	4	7	3	7	11	9	11	6	5	7	70
Housewives and Domestic.....	213	220	231	256	281	274	310	302	305	329	2721
No Record .....	30	59	52	55	52	49	57	45	45	57	501





died from tuberculosis. Table II shows the occupation recorded on the death certificate of these individuals. In a state where agriculture is such an important factor, it is natural to find a large number of deaths among men engaged in this occupation. About one in four of the males in this age group were agricultural workers. There were

746 deaths among skilled workers and foremen.

As might be expected in this age group the number of females listed as housewives and domestics was very high, namely, 81%.

RESIDENTIAL DISTRIBUTION

As an index to the place of residence of persons over forty-five who died from tuberculosis the County of Marion and the City of Indianapolis were studied. This county has the largest population in the state. There were 500 deaths from tuberculosis of persons in this age group in this county during the past five years (1934-1938 inclusive). Twenty-four deaths occurred in hospitals in Indianapolis of persons whose homes were outside of the county. They are, therefore, omitted from Map I. The number whose residence was in Marion County, but outside of the area shown on the map, are placed along the bottom margin. This map shows clearly that the place of residence of these people dying from tuberculosis was not confined to one street or one section, but was scattered over the entire City of Indianapolis and the County of Marion. Scattered about in homes as they were and associated more or less intimately with other members of the household, they acted as potential sources of infection for tuberculosis. This is a condition which makes for the gravity of the tuberculosis problem. Were tuberculosis confined to a single area it would be much simpler to deal with from a public health point of view than it is now.

With these facts before us we are not justified in holding to the impression that tuberculosis is nonexistent in persons forty-five years of age and older.

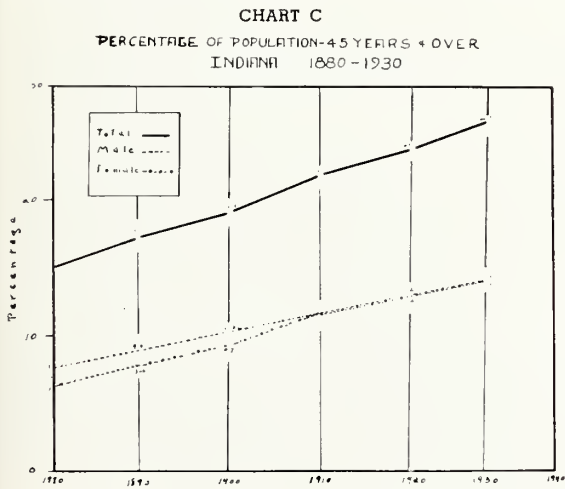
SUMMARY

1. In the State of Indiana there has been a gradual increase in the percentage of persons over forty-five years of age who died from tuberculosis. In 1938, 45.2% of all the tuberculosis deaths in the state occurred in people in this age group.

2. In 1933 and again in 1938, 50% of all the males dying from tuberculosis occurred in men forty-five years and over.

3. The percentage increase in deaths due to tuberculosis has exceeded the percentage increase in population of people over forty-five years of age.

4. Persons in this age group are undoubtedly to be found in every part of the state in a manner similar to that found in the City of Indianapolis and County of Marion and, as such, they act as potential "spreaders" of the tubercle bacilli.



## CLASSIFICATION OF HYPERTENSION

IRVINE H. PAGE, M.D.†

Indianapolis

It has long been realized that elevated arterial pressure may be caused by more than one morbid state, but it is not generally recognized how numerous—47 in our list—and how protean these causes may be. For this reason, it seems useful to summarize the known causes. Such endeavor often emphasizes the modesty of contemporary knowledge of the subject, thereby stimulating those of an inquiring mind to add to it. To formulate the challenge is to subject it to attack, and this indeed is one of the functions of the clinical sciences.

It should be stressed that, in the classification which follows, hypertension may be merely an associated condition without necessarily being caused by the disease listed. Of immediate importance to clinicians are further data: (1) on the clinical course of hypertension, e.g., its natural history, (2) on the frequency of its association with certain diseases, and (3) on those factors which cause it to appear associated with those diseases. This knowledge is attainable at the bedside and requires for its acquisition no special research facilities.

### CLASSIFICATION OF HYPERTENSION

#### Renal

- a) Affections of Vessels
  - Arteriosclerosis
  - Periarteritis nodosa
  - Arteritis
  - Anomaly
  - Obstruction (tumors, aneurysm, arteriosclerosis, embolism, thrombosis)
  - Thromboangiitis obliterans
- b) Affections of Parenchyma
  - Acute nephritis
  - Chronic nephritis
  - Pyelonephritis
  - Hydronephrosis
  - Polycystic disease
  - Amyloidosis

- Infarcts
- Tumors
- Hypernephroma
- Ectopia
- Toxemia of pregnancy
- X-ray lesions
- Renal stones
- Hypogenesis
- Dystopia

#### c) Affections of Perinephric Structures

- Perinephritis
- Tumors
- Hematoma

#### d) Affections of Ureter

- Obstruction (pelvis, ureter, prostate, urethra)
- Pyelitis

#### Cerebral

- Increased intracranial pressure (trauma, tumor, inflammation)
- Diencephalic stimulation
- Anxiety states
- Lesions of brain stem (ascending paralysis, poliomyelitis)

#### Cardiovascular

- Heart failure
- Arterio-venous fistulae
- Angina pectoris
- Heart block
- Coarctation of aorta
- Atheromatosis
- Lead poisoning
- Polycythemia

#### Endocrine

- Pheochromocytoma
- Adrenal carcinoma
- Adrenal hyperplasia?
- Wilms's tumor
- Cushing's syndrome (pituitary adenoma)
- Pituitary basophilism?
- Acromegaly
- Thymic carcinoma
- Hyperthyroidism
- Menopause (natural or artificial)
- Arrhenoblastoma

#### Unknown

- Essential hypertension
- Malignant hypertension

† Lilly Laboratory for Clinical Research, Indianapolis City Hospital.

### ABSTRACT: UNHOSPITALIZED TUBERCULOUS PATIENTS BENEFITED BY PNEUMOTHORAX

Pneumothorax (collapse of the lung) is especially beneficial and even essential to tuberculous patients who, because of lack of beds, cannot be given institutional care, Frederick Tice, M.D. and Allan J. Hruby, M.D., Chicago, declare in *The Journal of the American Medical Association* for July 8.

The pleural cavity which surrounds the lung is a partial vacuum. By introducing a needle through the chest wall into the pleural cavity, air is allowed to enter, thus forming a positive pressure on the infected lung which collapses it sufficiently to permit the rest required to aid in the healing process.

In their discussion of the value of pneumothorax the authors declare that twice as many patients given this treatment survive as those not receiving it.

Drs. Tice and Hruby believe that collapse treatment should be widely used and that whenever possible the collapse should be continued in the clinic after the patient has been discharged from the sanatorium. In

small communities in which sanatoriums are not practical the addition of a few beds to the clinic will serve the purpose.

They support this belief with their findings of a survival rate of 66.5 per cent for patients treated exclusively in the clinic, 75.9 per cent for those treated exclusively in the sanatorium, and 84.9 per cent for those who had the advantages of combined clinic and sanatorium treatment. They also found that the results for Negroes, while not up to those for the members of the white race, were satisfactory.

"As a result of the investigation and of actual experience in the clinic and at the bedside," they say, "the officers and the medical personnel of the City of Chicago Municipal Tuberculosis Sanitarium are convinced that collapse is a fine public health instrument as well as a medium of cure and rehabilitation beneficial to any tuberculous patient with the indications."



## A CASE OF SUB-ACUTE BACTERIAL ENDOCARDITIS PRESENTING SOME SURGICAL CONSIDERATIONS

J. R. PHILLIPS, M.D.

Michigan City

Since 1910 when Schottmüller<sup>1</sup> described a prolonged form of bacterial endocarditis as endocarditis lenta, we have come to regard a certain clinical syndrome as sub-acute bacterial endocarditis. Just a few years ago this condition was much discussed in the literature, the chief causative organism was regarded as streptococcus viridans or as it is now known, alpha hemolytic streptococcus (other organisms have also been isolated), and our attention was called to a number of diseases with which it might be confused.

Among the errors in diagnosis were certain surgical conditions such as acute appendicitis, acute salpingitis, acute cholecystitis, et cetera. These pitfalls, now that the disease is better understood, are readily explained, but if it is not constantly borne in mind when we encounter an unexplained temperature, chills, sweats, pain or tenderness, anxiety and loss of weight, we are quite likely to be misled by the constantly changing picture. The nicest sort of judgment may be called forth in weighing this problem.

Recently we encountered this condition in a young woman who already suffered from a heart ailment, chronic endocarditis, which had been present from childhood.

### CASE REPORT

*History:* Mrs. M. S., white, age 23, native born, para II, was admitted to the hospital August 6, 1938, complaining of nausea, vomiting, lower abdominal pain and a temperature of 102°.

She was seen in her home two days before admission, complaining of a frontal headache of several hours duration which had not yielded to the usual home remedies. There was a history of prolonged menses at her last regular period (3 weeks). Previously she had been regular since two months following the birth of her last child, eight months before. The following day she was feeling better but on the day of admission to the hospital she had developed severe, lower abdominal pain, chiefly on the right side.

Past personal history: Briefly the chief points are as follows: St. Vitus dance at age 8 followed by endocarditis; pyelitis following birth of first baby, details not known; confined for one month in hospital in Detroit; good recovery; no recurrence. Last pregnancy and puerperium uneventful except that she was in bed for a few days in the latter weeks because of some swelling of the ankles and shortness of breath. Two months ago she presented herself at the office complaining of lower

abdominal pain at which time a diagnosis of right cystic ovary, moderate, and a possible chronic appendicitis was made with the recommendation that she continue the use of mineral oil, use a diet containing more roughage and remain under observation. The white blood count and urine were normal.

Family history: has no particular bearing on present illness.

Examination: Weight 120 lbs. No recent loss in weight. Appears toxic. Other salient points were: rapid pulse, 120; marked systolic, mitral murmur, heard all over the chest wall with cardiac dullness increased to the left and a definite lower abdominal tenderness on both sides but more particularly on the right. There was no abdominal distension, no palpable mass, and the pelvic examination revealed only a moderately enlarged right ovary.

Laboratory findings: R. B. C. 3,620,000; W. B. C. 16,000; Hgb. 62% (Dare). Differential blood count, Schilling. B E M J B S L M N

0 0 0 1 17 72 8 2 90

Urine negative for albumen, sugar, leukocytes, casts and blood.

The patient was kept at absolute rest in bed with an ice bag to the abdomen and a 5% glucose solution was given by proctoclysis, intermittently as tolerated. Nothing was given by mouth. Digitalis (digalen 1 cc.) was given hypodermically every 4 hours. August 7 the blood count was as follows: R. B. C. 3,333,000; W. B. C. 15,780. August 10, the R. B. C. 3,470,000; W. B. C. 12,750; polymorphonuclears 72%. Temperature 99°, pulse 90, respiration 20. Patient was dismissed from the hospital and advised to stay in bed at home, continuing digitalis, grs. i, t.i.d., until discontinued.

For the first week at home the patient appeared to be doing splendidly, and then she began to have night sweats. The temperature varied from 97.6° F. in the morning to 102° in the afternoon. She was extremely anxious, sometimes irrational at night, and complained of pain in various and sundry locations. She was losing weight. The Widal and agglutination tests for paratyphoid A and B, tularemia and undulant fever, as run by the Indiana State Board of Health, were all negative. A blood culture showed no growth at the end of a week; indeed, there was no growth after many weeks had elapsed.

On September 1, 1938, 25 days after first admission, she was readmitted to the hospital complaining of tenderness over the twelfth rib, posteriorly on the right, with a temperature of 102.8 and again complaining of lower abdominal pain. Auscultation

<sup>1</sup>Thayer, William S.: Studies on Bacterial Endocarditis. Johns Hopkins Hospital reports, 1926.

of the chest was made difficult because of the marked mitral murmur obscuring the breath sounds but the heart was now enlarged more markedly to the left and there was a definite shock. The P. M. I. was at the eighth interspace well outside the mid-axillary line and a diastolic murmur was also noted. There was some tenderness over the lower abdomen but there was a question whether or not there was any localized tenderness over McBurney's point. We were inclined to believe that there was not. The liver dullness was increased upwards to the fourth rib but not below the costal border. Posteriorly there was a decidedly marked and persistent tenderness over the right twelfth rib (for past two days) with no tenderness in the region of the kidney anteriorly. There was no cyanosis or edema and the pelvic organs were not tender. The urine was negative.

"A film taken of the abdomen to include the diaphragm shows it to be smooth throughout and all the phrenic angles clear with no roughening. It is noted, however, that there is a prominent distension of a loop of small bowel on the left side of the abdomen, not of a degree that would indicate obstruction, but suggestive of either adhesions or regional ileitis."

Since the pain persisted over the right twelfth rib posteriorly and even in the absence of an elevated diaphragm on the affected side as described by Ochsner<sup>2</sup>, a subphrenic abscess was suspected and accordingly, on September 2, 1938, under novocaine anesthesia, we resected the twelfth rib and explored the posterior superior space. A small amount of brown, serous fluid which showed no growth when cultured was the only finding. On September 6, 1938, the temperature had dropped from 102.8° on admission to 99° and the pain had disappeared. W. B. C. was 23,400 and R. B. C. was 4,820,000. It is to be noted that the red cells had increased materially under reticulogen.

During the afternoon of September 6, the patient developed abdominal distension and, bearing in mind the x-ray report, we could easily conjure up an obstruction. There was some emesis of what appeared to be bile but by evening there was a well pronounced left sided tumor extending to the pelvic brim. Consultation was obtained and it was decided that we were dealing with an acute dilatation of the stomach and Wangensteen decompression was resorted to with great relief. The stomach dilatation abated as long as the drainage was used but it was necessary to employ it for 48 hours until conditions had returned to normal.

There was extreme mental apathy and this was thought to be due to toxic absorption although she had been receiving considerable glucose and salt solution intravenously and by hypodermoclysis. Temporarily the patient was improved. At consultation it had been thought that the whole chain of events probably arose from either an appendiceal

or pelvic inflammation and that the acute dilatation of the stomach was of toxic origin. As already noted, supportive treatment, glucose and normal salt solution and siphonage were carried out.

Then on September 10, 1938, eight days after the rib resection, while the nurse was out of the room, the patient either fell or got out of bed, bruising the right chest wall, and the dressing which had previously been dry showed a bloody tinge on examination of the incision. The mental condition was extremely bad, the patient being completely disoriented, unable to fix her attention, and the abdominal reflexes were absent or greatly diminished. There were no other neurological signs.

The following morning, on examination, the chest wall and arms showed a great shower of petechiae, the temperature was 100°, pulse 110 and respirations 30. Only then did the diagnosis become clear. From that time on the patient failed rapidly. A blood transfusion, using a donor who had recovered from a streptococcus viridans infection (an army aviation cadet), sulfanilamide and prontosil, streptolysate, all were unavailing and the patient died November 7, 1938, approximately two months after the appearance of the petechiae. There was evidence of decompensation, cyanosis and edema, respiratory embarrassment, painful and swollen knees, delirium and more showers of petechiae and finally a great slapping sound in the heart, the latter no doubt due to vegetations on the heart valves. We were unable to obtain an autopsy.

#### SUMMARY

This case has been presented because of the interesting and complexing chain of events. Starting with chorea in childhood, she developed an endocarditis which did not interfere with marriage and bearing children. A pyelitis cleared up with no sequellae. A second pregnancy was not immediately followed by any serious disorder. Later we were led to make several diagnoses which may or may not have been correct. In retrospect we are led to wonder if the lower abdominal pain was from the first due to emboli, or was there an inflammatory condition which set off the sub-acute bacterial endocarditis? Were we justified in exploring the posterior, superior space? Should we have opened the abdomen on the first hospital admission?

We have made no attempt to discuss sub-acute bacterial endocarditis from the standpoint of etiology, symptoms, etc., because that is well known and as far as we went there does not appear to be anything particularly new. We did find reference to cure by the use of sulfanilamide or its combinations but it was also pointed out that one thing this drug does do is to inhibit. Later on the organism appears again in the blood stream. In this case there was no growth in culture at any time, not even after the petechial hemorrhages were evidenced. Neither was there blood in the urine at any time, and frequent specimens were examined.

<sup>2</sup> Ochsner, Alton: *Tri-State Medical Journal*. Feb., 1938.



## DIAGNOSIS AND RESULTS OF TREATMENT OF TOXIC GOITER\*

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The diagnostic symptoms of toxic goiter have been well ingrained on the minds of the members of the medical profession in endemic goitrous areas and to a great extent on the laity. Whenever these symptoms are clean cut and advanced they leave little question as to their etiology, but the mild and beginning cases with only one or two diagnostic symptoms of moderate severity are the ones that are missed until permanent damage has been done and the symptoms have multiplied to the point where there is no longer any question about the diagnosis.

The signs and symptoms that are recognized as possibly due to toxic goiter are (1) tachycardia, (2) nervousness and irritability, (3) enlargement of the thyroid gland, (4) a fine tremor of the hands, (5) abnormal moisture of the skin, (6) gastrointestinal disturbances, (7) rise in basal metabolism rate, (8) increase in appetite and consumption of food with no increase or loss in weight, (9) palpitation of the heart, (10) chronic fatigue, (11) hypertension, and (12) mental instability. All of these symptoms may not be evident in the same individual at any one time and they may appear individually or with accumulative force as time passes and the toxicity of the goiter becomes more virulent.

In the beginning of the toxicity, the nervous symptoms usually appear before the cardiac symptoms so that the patient will frequently see a physician and take treatments for nervous instability and entirely neglect to note that there is an early irritability of the heart. It is not uncommon to find that a patient has been taking bromides for his nervousness or, if the disease has progressed further, to have added to that tincture of digitalis to slow the heart, with a diagnosis of nervousness associated with heart disease.

The differential diagnosis is important. Toxic goiter must in the main be distinguished from ovarian disturbances, neurocirculatory asthenia, lues (particularly of the central nervous system type), hyperadrenalism, anterior pituitary dystrophy, chronic infectious diseases causing a mild cardiac weakness and nervousness, diseases causing under-nourishment such as diabetes, tuberculosis, and asthma, and certain types of insanity.

An enlargement of the thyroid gland which is non toxic in the presence of the other diseases which give some of the symptoms of a toxic goiter may make the diagnosis very difficult, particularly as the basal metabolism test is at times misleading and gives a false impression of the toxicity in the presence of an associated devastating disease. It

is extremely important to avoid being misled by utilizing all available laboratory tests to eliminate other diseases. Diabetes, tuberculosis, asthma, lues, blood dyscrasias, insanity, and chronic infectious diseases are more easily ruled out than are hyperadrenalism, anterior pituitary dystrophies, ovarian disturbances, and neurocirculatory asthenia.

Blood sugar tests will determine the presence or absence of diabetes but in taking these tests we must not overlook the fact that goiter may be coincident with the other physical troubles, and if goiter is present it will delay or entirely hinder the recovery from these diseases by using the reserve strength which should be available to the individual. Both diabetes and goiter are debilitating diseases and may have a marked similarity in the symptomatology.

An x-ray of the chest may be necessary in order to differentiate between possible tuberculosis or toxic goiter. This roentgenogram will also demonstrate an intra-thoracic goiter if present. On the other hand, a large intra-thoracic goiter may simulate and give some of the signs and symptoms of tuberculosis by pressing on the trachea and producing a chronic hacking cough with a small expectoration of muco-pus. The cough with an attendant loss in weight and marked weakness may lead to a diagnosis of tuberculosis and, if the toxicity is only moderate, the true cause of the trouble may not be found for many months. The irritability of the trachea and the associated debility may actually light up a latent pulmonary tuberculosis with the appearance of Koch's bacilli in the sputum. Many of these cases are on record and Sloan of Bloomington, Illinois, made a special study of this subject and has freed the sputum of tuberculous germs by removing the offending enlargement, reducing the oxidization of the tissues and giving greater aeration of the lungs.

Syphilis can simulate any disease and goiter is no exception. When it is of the central nervous system type and particularly late in the disease, it gives many of the specific diagnostic symptoms of goiter. The heart hypertrophies and palpitates. Nervousness and irritability are outstanding and tremor is noticeable. A Wassermann test made from the cerebro-spinal fluid will indicate the presence of lues but will not, of course, indicate the presence or absence of goiter. If goiter is present or associated with lues, evaluation of the damaging effects of each can be made by the condition of the heart, inasmuch as syphilis will cause irregularity and murmurs, whereas goiter does not do this except late in the disease or in the presence of fibrillation. In addition, goiter does not cause a widening of the arch of the aorta which can be detected with x-ray and physical examination.

\* Presented before the Northern Tri-State Medical Association at the meeting in South Bend, April 11, 1939.

Since the advent of iodine salt there has been a slow decrease in the incidence of goiter in formerly severely goitrous areas. In an examination in my office of 300 working men on whom blood Wassermanns have been done since last November, unsuspected syphilis was found in ten (10) cases or an incidence of three percent (3%). Most of these men were above the age of 40 years. Five cases of toxic goiter were noted, or an incidence of 1½%. This indicated in men twice the prevalence of syphilis over goiter in an area in which the occurrence was formerly reversed. A snap diagnosis of goiter should, therefore, not be made. The percentage mentioned was on men, but it would be different with women as the incidence of goiter is 5.2% women to one man in those coming to operation.

Certain blood dyscrasias will give an increased metabolic rate, but there is very little similarity in the symptomatology and the blood pictures of lymphocytosis and megalocytosis rule out goiter. Chronic infectious diseases may give a tachycardia, palpitation, fatigue, abnormal moisture of the skin, nervousness, and tremor. Enlarged and infected tonsils, abscessed teeth, appendicitis, and cholecystitis are the most frequent offenders. They may of themselves institute a toxicity which gives this symptomatology but, in addition to this, infection will stimulate the thyroid gland, and may originate a primary hyperthyroidism. The removal of the infectious process, if the thyroid is not stimulated or only mildly so, may be followed by a subsiding of the symptoms but they may act like the starter of an automobile giving pathological activity to the thyroid gland, but after they have been removed the activity may not subside and the thyrotoxicosis continues.

In the examination of a patient, therefore, it can not always be determined whether the removal of the infectious process will completely eradicate the thyrotoxicosis. The prognosis should be guarded even though the infectious process is eradicated. If the thyroid is removed and the originating infection is left, the symptomatology will be only temporarily improved as the small amount of thyroid tissue left will be stimulated and the symptoms recur. This is probably one of the main reasons for recurrent hyperthyroidism. It is most apt to persist or recur in primary hyperthyroidism or Graves Constitution and much less likely in adenomatous goiter. The acutely appearing infections, particularly those subsiding quickly, are less likely to cause goiter than are those of long duration, even if the infection is severe, but repeated occurrence will have the effect of a chronic infection on the thyroid gland. It is interesting to note that when there has been evidence of a goiter which has persisted over a long period of time, even if the basic metabolic rate is not particularly high, there is much greater danger in the removal of the gland and a much longer convalescent period following its removal than there is when the toxicosis is acute and of

short duration, in which case also the convalescence is shorter and the recovery is more complete even though the basal metabolism rate is higher at the time of operation. This is due to the patient's heart reserve having been used up by the long continued and persistent assaults upon it.

Hyperadrenalism can give every symptom that a toxic goiter will produce. The Goetsch test is based upon this premise. The administration of adrenalin in the presence of toxic goiter will markedly aggravate the symptoms. The administration of adrenalin to a patient with hyperthyroidism may throw him into a crisis which may not subside and may possibly produce a fatality. For that reason the Goetsch test has fallen into disfavor and is no longer being used by most physicians. The major portion of the work on adrenal glands, however, was instigated by the phenomena produced by this test. The premise on which Crile, DeCourcy and others have worked is that hyperadrenalism stimulates the sympathetic nervous system to the point where an increased basal metabolic rate is induced and the symptoms of thyrotoxicosis follow. In combating this condition, the 20 to 30 filaments of the sympathetic nervous system which end in each of the adrenal glands are cut or avulsed and the drive is therefore stopped with a resulting subsidence of the symptoms. The procedure is not without danger as the adrenal branches of the adrenal artery are fine and easily torn and a physiological death may follow the operation. The basic premise may be fallacious, however, inasmuch as the sympathetic nerves are afferent and not efferent to all other organs and a direct drive from the adrenals on the sympathetic system is not possible unless the stimulation is reversed in this case, and comes through to the sympathetic nerves from the adrenals.

Crile has reported many times the results of his work along this line and believes that he can stop recurrent and persistent hyperthyroidism by the avulsion of these nerves. He has also done denervations for primary hyperthyroidism without a previous thyroidectomy and states that he has had as much improvement from it as he would have had from a lobectomy. However, this procedure will not be popular as a matter of election because of the technical difficulties and dangers of the operation and also because of the difference in opinion as to results. However, it may be done in cases of persistency of the symptoms after thyroidectomy when repeated operations for goiter fail in reducing the symptoms.

Joseph DeCourcy reported the removal of parts of the adrenals for reduction of thyrotoxicosis but the results were unsatisfactory. There is a temporary reduction of the toxicity but within 6 to 8 months the symptoms recur. The adrenals have re-developed to their original size and activity. Repeated experimental work on dogs, in which ¾ of the adrenals have been removed, demonstrates the hypertrophy of the remaining ¼ to normal size



within a period of eight months. This interrelationship between time glands makes the differential diagnosis difficult. The assumption should be first that the thyroid is at fault and the treatment should be directed toward the elimination of excessive thyroxin production, and the diagnosis of hyperadrenalism made by the process of elimination.

The thyrotropic hormone of the anterior pituitary will directly stimulate the thyroid to over-production of thyroxin. It apparently does not have the power to give the symptoms of goiter in itself, but acts upon the normal thyroid to activate it. The continual stimulation over a period of time may eventually cause a pathological thyroid gland. The pituitary hormone can not be controlled by medication, nor is surgery on the pituitary an answer to the problem because of the difficulties of the operation. Treatment must of a necessity be limited to the thyroid gland, though a technic has been worked out for control of the pituitary by deep x-ray which may decrease the production of this hormone but no results have been reported yet which are satisfactory. The differential diagnosis must be worked out in individual cases by biological experimentation.

There is a close relationship between the ovaries and the thyroid gland. Ovaries stimulated by the physiological processes of pregnancy and menstruation in particular and to a lesser and shorter extent by sexual excitement either excite the thyroid to over-activity by the over-production of a thyroid exciting ovarian secretion or the hormone in itself gives the symptoms of goiter. Probably it is the former as the administration of whole ovary in large amounts has very little metabolism raising effects on the patient. It is not unusual to elicit the history of a normal woman developing an enlargement of the thyroid during her first pregnancy with the symptoms of an active goiter, followed by a subsidence in the size and activity of it after the child has been born, but with a recurrence both of enlargement and activity with each subsequent pregnancy and usually in a more virulent form with each event. At the first pregnancy the thyroid is colloidal in type, but later adenomas develop and the toxicosis becomes great enough to necessitate thyroidectomy. During a pregnancy there is a gradual rise in the basal metabolic rate if the thyroid is over-active at the time of conception and much permanent damage may be done to the mother if the goiter is allowed to go untreated. At times it may be necessary to terminate pregnancy in order to save the life of the mother. Crotti has advocated Cesarean section if the pregnancy is in the last two months, with a subsequent removal of the thyroid. However, if the patient is carefully treated and given early medical treatment, this procedure may be avoided. If in spite of the treatment the patient shows a gradual increase in the toxicosis, a thyroidectomy can and should be performed without interruption of the pregnancy. I have operated upon a number

of these patients and have lost neither the mother nor the child. This result is not all due to good fortune as it is to be noted that thyroxin does not cause uterine contractions and there is no particular reason for the uterus to begin contractions except as a result of the shock of operation which should not be great. Morphine must be avoided in preparing the patient for operation, but novocaine can be used without danger.

Infectious diseases of the ovaries have no more tendency to activate the thyroid than does any other type of infection. The ovarian secretion is decreased in amount due to the ravages of the infection on the ovarian structure and, therefore, this stimulating power is lessened. The toxicity developed as a result of the infectious process may, however, give some of the symptoms of thyrotoxicosis but in these cases it is proper to treat the pelvic infection rather than the thyroid gland.

Pressure on the trachea by a substernal goiter can be severe enough to interfere with respiration. The tracheal rings are strong and nearly circular and will withstand much outside pressure, but the continued irritation causes interference with the mucosal blood supply, producing a thickening with a resulting narrowing of the lumen, production of a small amount of muco-purulent secretion, and with further extension a definite bronchitis with symptoms simulating asthma. For a long time I did not believe that tracheal rings could be pressed upon severely enough or over a long enough time to soften them and allow a tracheal collapse with the possibility at operation of complete obstruction to the air flow. Tracheal collapse has been talked about and has appeared at intervals in goiter literature, but the symptoms described could have been and, I believe, often were those resulting from interference with the recurrent laryngeal nerves and obstruction to respiration by closure of the air passage by the collapsed vocal cords. However, I have had to revise my opinion as I have since seen tracheal rings completely softened by long continued external pressure by a substernal goiter almost to the consistency of the tissue in the inter-ring spaces so that the trachea dilated and contracted with each respiration. It would be, in such a case, very easy to have a tracheal collapse, necessitating introduction of a tracheal tube below the softened area. Either of these conditions can give asthmatic symptoms and I have performed thyroidectomies on four patients who for years had been treated for asthma, but who really had substernal goiters and they have had relief from the symptoms when better aeration was allowed.

Neurocirculatory asthenia is difficult to distinguish from toxic goiter in so far as all of the symptoms of goiter may evidence themselves in the disease. However, it is seldom seen except in those who have undergone severe excitement and found the subsequent strain of existence very trying. Following the war many cases appeared in

soldiers and some are still appearing. The heart is rapid and palpitating, there is a tremor and nervousness with abnormal moisture of the skin and often loss in weight. However, the basal metabolism rate is not elevated and rest in bed for three or four days with sedation brings the heart rate to normal and promptly reduces the nervous reaction, but when the patient resumes his activities there is a prompt return of the symptoms. These will continue over many years whereas the toxicity of the goiter which would be severe enough to cause such symptomatology is usually only of two or three years duration and culminates in a recession only as a result of treatment for it or operation. The diagnosis of neurocirculatory asthenia should only be made after a most complete examination of the patient, as it is too easy to jump to this diagnosis instead of running down the real cause of the trouble, which may be toxic goiter of the masked type. In reality this means the thyroid is only moderately enlarged and moderately toxic, and is deeply buried in the neck but on section shows a marked diffuse cellular infiltration or a small active adenoma.

A relatively low grade, but long continued hyperthyroidism frequently causes marked mental disturbances which lead to a diagnosis of insanity from some toxic poisoning. Patients are often incarcerated in an asylum for care and observation, with a tentative diagnosis of psychosis from unknown toxic origin. Within a period of two years I have operated fifteen cases of toxic goiter that had been placed in the insane asylum for diagnosis and treatment. In addition I saw many more that were not operated, either because of their condition or because of objections for one reason or another. These people all have the cardinal symptoms of goiter plus the mental disturbance which takes the form of severe and uncontrolled excitability, usually introspection, and even marked delusions. Suicidal tendencies are common. Irritability may become so marked that the patient is dangerous to those around him and the family is afraid to have him in the same house for at any time he may become dangerous. Dr. Henry Plummer believed that insanity is not caused by toxic goiter, but that if insanity is present, a potential toxic goiter can aggravate or stimulate it to the degree that symptoms of mental instability may appear. However, a toxic psychosis is certainly evident in some cases so that the above mentioned symptoms appear, and the advanced cases are necessarily confined. After a thyroidectomy is performed, the mental condition is improved if the disease has not progressed too far, and the patient often is able to resume a normal existence.

Goiter surgery has improved in recent years in technic, pre-operative preparation, and post-operative care. An examination of the reports of the large goiter clinics throughout the country demonstrates a rather universal and uniform mortality rate of less than one percent in thyroidectom-

ies. Most of this improvement has come as a result of pre-operative preparation. Instead of treating these patients as acute surgical problems it has been found that a long period of rest and the administration of iodine usually in the form of Lugol's solution will put these patients in a condition where it is safe for them to be operated upon. If this treatment does not bring the pulse down and stop the palpitation, then death will almost invariably follow thyroidectomy. Ligation and lobectomy will reduce the shock in far advanced cases, but if the patient continues to improve under the treatment it is better to wait until absolutely certain that maximum improvement has resulted before doing even a ligation as even this procedure is not without danger.

The use of iodinated salt has, as I stated heretofore, markedly decreased the incidence of goiter. It will not completely eradicate it as there is a certain amount of goiter even in areas where iodine is plentiful and where every one is taking a certain amount in his food and water. Some of the effects are striking. In one area in West Virginia goiter was at a minimum and seldom seen. The inhabitants were using a brownish salt extracted from salt wells, the brown color being that of the iodine which was plentiful in the salt water. Then purified white salt which was of a finer grain and of much nicer appearance but without any iodine content was introduced into the territory and shortly afterward goiter made its appearance in the territory and continued for many years until iodized salt was introduced and goiter is now on the wane.

Medical treatment of colloidal goiter in young people will reduce the size of the gland to normal and if it is continued the goiter will not reappear. However, most treatment is not continued and after a few years the gland enlarges again and eventually becomes nodular followed by thyrotoxicosis when strain or infection activates it. After the toxicosis has started in the adenomatous type, medical treatment is difficult and results poor. Rest in bed and iodine will improve the patient for a short period of time, but will seldom cure it. While surgery is not perfect it is at present the best treatment for toxic goiter that we have. We must remember that in removing the goiter we are not repairing the damage that has been done to the heart and nervous system, but only stopping any further damage. Most of the poor results occur because the operation comes too late or because too little of the gland has been removed. It is difficult to throw a patient into myxedema unless a total thyroidectomy is done. A true sub-total thyroidectomy is a nice technical procedure inasmuch as the parathyroids must be isolated and the recurrent laryngeal nerves demonstrated. If these are not all located, a true sub-total thyroidectomy is not possible without danger to the patient.

Graves' disease is the type of goiter which is most amenable to medical treatment after it is



fully developed. Rest, sedatives and iodine will reduce the toxicity very markedly and in some instances the treatment may keep the patient fairly well for a long period. However, the usual course is for the disease to recur after a period of time with more heart damage and less likelihood of a good result from surgery. The patient is better served by removal of the gland when the toxicity has been well reduced medically.

In conclusion, I wish to emphasize the advisability of a most careful differential diagnosis, the advantage of long and continuous treatment of early colloidal goiters, a careful, adequate, and unhurried pre-operative preparation for surgery, and sub-total thyroidectomy when surgery is advisable.

320 MICHIGAN STREET.

## ABSTRACTS

### JOURNAL URGES MORE EMPHASIS ON TUBERCULOSIS PREVENTION

A more widespread emphasis on the prevention of tuberculous infection and on early diagnosis, particularly by tuberculin test and x-ray examinations, is needed today because of the decreasing incidence of the disease among infants and young children, an editorial points out in *The Journal of the American Medical Association* for July 8.

As the result of the campaign against tuberculosis in man and in animals, the editorial says, a generation of children and young adults are developing who have escaped primary infection. It has been the prevailing idea that almost all human beings in the past were infected with tuberculosis in infancy or early childhood, that this primary infection in the great majority of cases became localized, encapsulated, inactivated or cured, and that a reinfection or a superinfection took place in a certain number of people.

"In the last fifteen years tuberculin testing of large groups of young adults in the United States has been carried out," *The Journal* says. "According to the seventh annual report of the Tuberculosis Committee of the American Student Health Association for the academic year, 1936-1937, positive reactors among 32,231 students amounted to only 30.5 per cent.

"Thus the infant of today has a much better chance of growing to adult life without contamination with tubercle bacilli than infants of former generations.

"This new generation, a goodly portion of which has never been infected with tubercle bacilli, presents a new problem, namely that of primary infection in adults. Are such persons more liable to tuberculous infection when exposed and will the ensuing infection be more severe than in those who had been infected in infancy but were not ill? J. Heimbeck, Oslo, Norway, believes that primary infection conveys a certain amount of protection."

### TUBERCULOSIS AMONG COLLEGE STUDENTS

During 1937-1938 over 64,000 students were given tuberculin tests with 25.8% showing positive reactions. Since 1932-33 when the first figures were collected there has been a steady increase in the number of tests and a slow but steady fall in the percentage of reactors. "The value of the tuberculosis program to the individual student, whether he be the patient or the protected, is incalculable," reports the Committee. "The effort of finding tuberculosis is justified by the educational value alone. It is a demonstration of how lives can be saved and the community safeguarded. This is hygiene that actually operates." Ann'l. Rep. Tuber. Comm. of Amer. Student Health Assn., 1937-1938.

### USE OF SULFAPYRIDINE REQUIRES CARE

The necessity of frequent and careful bone marrow and blood studies when sulfapyridine is used for prolonged or intermittent periods, is given additional emphasis by

the report of three cases of granulocytopenia (deficiency of granule blood cells) in children, made by Nathan Rosenthal, M.D., and Peter Vogel, M.D., New York, in *The Journal of the American Medical Association* for Aug. 12.

Sulfapyridine is a valuable drug in the treatment of pneumonia in adults and children. It is usually effective within two or three days, but is as toxic as sulfanilamide.

In addition to the continuous nausea which usually follows the taking of sulfapyridine, dangerous toxic complications may arise, of which granulocytopenia and jaundice are the most important symptoms.

### TUBERCULIN SENSITIVITY

Tuberculin sensitivity has been used in Cleveland as a means of finding early cases of pulmonary disease in the adolescent child without great cost. The small and slowly decreasing number of reactors in the first grade and the high schools, the low morbidity and mortality in both sexes below the 35-year limit, and the drop in unreported cases all support the theory that a consistent use of this method of attack should make tuberculosis a relatively rare disease in about ten years. The fewer cases there are in a community, the more necessary it is to use the tuberculin test among children to locate them. Tuberculin testing eliminated tuberculosis among cattle. It can do the same for man using the reaction as a means of finding tuberculosis in the child's environment rather than in the child himself. Edwards, *Jour.-Lancet*, 1939, 59.

### ANGINA PECTORIS AS CAUSE OF DEATH

Angina pectoris cannot be given as a cause of death. George Dock, M.D., Pasadena, Calif., declares in *The Journal of the American Medical Association* for Aug. 12.

Pointing out that angina pectoris refers only to symptoms and not to a definite disease entity, Dr. Dock contends that whenever the term is used "it must be with the conviction that the name refers only to symptoms and demands a prompt and thorough differential diagnosis to exclude all other causes of pain, or to assign them their significance. Its adoption also necessitates an exact and persistent search for evidences of coronary disease and a prompt and intensive plan of treatment to meet all possibilities.

"There is a wish for a better name than angina pectoris, but until we have more exact knowledge of the minute processes I see no reason for change," the author affirms.

The term angina means a disease or symptoms characterized by spasmodic suffocating attacks, and the word pectoris refers to the chest. The author points out that "angina" was used as early as the sixteenth century to designate cases of quinsy or sore throat in which a feeling of strangling and anxiety entered. "Chest pain" was therefore an apt name for the group of symptoms that arrested the attention of William Heberden, who first used the term angina pectoris.

## THE CESAREAN OPERATION IN RELATION TO MATERNAL MORTALITY\*

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American obstetrics has been on the defensive, facing a world-wide critical scrutiny in the last several years. As a result of an unfavorable comparison of national statistics, our people, as well as our profession, have awakened to the need of improvement in the practice of obstetrics and the profession has set about devising ways and means to that end.

We must admit, too, that our profession as a whole has gained a broader concept of our sociologic responsibilities through this state of unrest and criticism. Those of us who give the matter of obstetrical practice the least thought are impressed with its need for continued study in order progressively to improve the maternal and new-born vital statistics of our country. To that end, our facilities for teaching and practicing better obstetrics must be constantly increased. Thus it has developed that many states are now offering special postgraduate courses through their medical colleges or state boards for the practitioners in their respective areas.

In the many supervised centers and in the areas serviced by them, marked improvement has taken place in the last decade or so, to the extent that the profession, the laity, institutions of learning and social service organizations are all interested in the movement and its results.

Perhaps the greatest single factor in reducing the dangers of the Cesarean operation is its election before any of the complicating or contra-indicating conditions have been permitted to develop.

The elective operation is no more dangerous and not much more difficult than the appendix operation, and certainly less than one percent in immediate risk. However, the delayed procedure, after the waters are away, with the patient more or less exhausted by an ill-advised test of labor, and after she has been examined vaginally or even subjected to attempted delivery, multiplies the dangers five times or more.

On the other hand, obstetricians realize that the Cesarean operation is too often elected without a proper understanding of its fitness in the given case. The attending physician, himself not sufficiently trained to make the decision, summons a general surgeon who is in the same boat, so to speak, to perform the operation without further differentiation or ado.

Is it really too much to ask for ourselves that a major obstetrical problem, serious enough to demand counsel, should be submitted to a good obstetrician for judgment? Is there any other

branch of medical specialty in which this is not the usual method of procedure? Without fear of contradiction, I dare answer emphatically that there is none. Who but the especially qualified obstetrician is capable of carefully weighing the indications and contra-indications for major obstetrical surgery?

In my opinion, there should be fewer tests of labor, so called, in these doubtful cases. The obstetrician should be prepared to decide by his skillful and careful examination aided, if necessary, by roentgenologic films, whether successful labor may be expected; if not, the early Cesarean section is elective, uncomplicated and safe. Especially is this element of safety true of the fetus, which also deserves consideration when weighing the dangers in midwifery.

Not for a moment should we advocate a more frequent resort to the Cesarean operation, for it is commonly conceded that a reduction in its ill-advised and indiscriminate use of a decade or so ago has been a very salutary factor in reducing the mortality rate of mothers. If, however, the operation could be more often elected early, rather than performed as a last resort, the risk would be one percent instead of five to ten percent. This, of itself, would show a marked improvement in both maternal and fetal mortality, for the competitive field in operative methods for delivery are fraught with dangers to the new-born as well as to the mother, to say nothing of added morbidity for both. For example, there are sections performed in primiparas with breech presentation without relative disproportion after the patient has labored and the waters are away, as they usually are in breech cases.

If the obstetrician feels a fit of "buck ague" when facing a breech in a primipara, then his operation should be early elective. The diagnosis should be made and external version done two to four weeks before term, thus obviating the necessity of having to consider major surgery in most cases and resulting in a marked saving of new-born morbidity and mortality.

While this advice is at variance with that of most teachers and writers, my experience has justified my hope in the efficacy of this procedure. However, these observations are offered briefly, in order to illustrate the point for early diagnosis and elective surgery. The following few cases will suffice to illustrate the opinions which I have expressed.

### CASE I

Mrs. E. L., referred for prenatal care because of pregnancy complicating a mitral heart disease. Patient co-operated throughout her puerperium and showed no tendency toward disturbance of

\* Read at the Marion County Medical Society, March 14th, 1939.



compensation until in the very severe heat of that summer, about one month before her term.

Patient admitted to the hospital at 1 P.M., July 24, 1936, for elective Cesarean section to be done the following morning. Temperature, 98; pulse, 88; respiration, 20; blood pressure, 130/70. Edema in feet and legs. She was restless that night and at 5 A.M. had a convulsion with cyanosis and a pulse of 180, and a second convulsion at 6:45 A.M. Blood pressure was 86/52 at this time.

Sedative treatment, mainly morphine, and digitalis sufficed to relieve the condition. At 10 P.M.,  $\frac{1}{2}$  gr. of morphine gave her a restful night. She was given morphine gr.  $\frac{1}{2}$ , scopolamine gr. 1/200 as a pre-anesthetic and operation under local anesthesia was performed the next morning, the patient being taken to the surgery in a typical though not profound "twilight sleep." She left the hospital two weeks after admission in good condition, but she still is the subject of a poorly compensated cardiac disease.

The points for emphasis in this case are (a) the choice of means of delivery (elective abdominal section), and the manner of anesthesia (local infiltration) which should be the choice in all similar conditions; (b) In this instance, a convulsion without toxemia, or at least without hypertension, making its sudden and dramatic appearance, unheralded and unexpected, necessitated a postponement of operation with subsequent stealing of the baby, as some surgeons "steal the thyroid," for obviously similar reasons, under a semi-twilight sleep.

I believe that, even though there may have been a moderate toxemia, not demonstrable, it was mental anxiety, fear, if you please, that precipitated this patient's convulsion. That belief is based upon her own description afterward of her mental state of apprehension the evening of her attack, which she described as "terrifying" fear.

#### CASE II

This case is the obverse of the first, namely, one of prolonged hypertension without convulsions or any pre-eclamptic symptoms.

Mrs. Ellen L., white, age 41, para IV. Youngest child, 20 years old. Admitted to the hospital August 25, 1935, the subject of marked hypertension averaging systolic 200, diastolic 110-120, without subjective symptoms except for frequent micturition and labor pains.

The patient had been at bed rest at home for ten days preparatory to hospitalization and termination of her pregnancy. Because labor had started at the eighth month and the fetus was evidently small, she was permitted a test of labor which proved fruitless after forty-eight hours of irregular, nagging pains.

Cesarean operation, under ethylene, was done August 27th, three weeks before term. New-born weight of the child was three pounds, nine ounces; length  $16\frac{1}{2}$  inches. The placenta was small, markedly thrombotic and studded with infarcts. After a course of morbidity for four weeks, the

patient left the hospital, in fair condition. Urine was of low specific gravity, with albumen present, trace to two per cent. There was chronic nephritis, tolerance of high blood-pressure, and under-development of the fetus, the last being the rule in nephritic mothers.

#### CASE III

Mrs. C. K., age 38, para I. Seen in consultation with the family physician, in 1935, in eighth month of pregnancy, when patient was having vomiting, fainting when arising, and had lost weight. There was marked pallor.

Examination showed hemoglobin, 29%; red blood cells, 2,600,000; color index, 6. There was noted toxemia of pregnancy, marked hypochromatic anemia, generally contracted pelvis of one degree, and general unfitness.

The patient was admitted to the hospital on March 28, 1935. She was given 850 cc. of blood by transfusion on March 29, and on the following day Cesarean section and resection of the tubes was done, and a living male child, weighing six pounds and three ounces, was delivered.

The tubal resection was done on the grounds of the patient's general unfitness and the risk of subsequent pregnancy, and the procedure was agreed upon by two other physicians.

On the fourth postpartum day, April fourth, there was slight edema of the left leg; two days later, the edema was marked. Gradually it resolved in the following ten days, and the patient was dismissed on March 20, 1935, in good condition, having suffered a very mild left-sided thrombophlebitis. Upon dismissal, the R.B.C. was 3,760,000, with hemoglobin 55%.

#### CASE IV

Mrs. D. D. was admitted to the hospital September 7, 1936, after having been in bed at home one week with moderate loss of blood—spotting after a free flow when at the toilet. Rectal examination corroborated the location of the placenta in the lower left quadrant, where the souffle could be demonstrated by auscultation. Diagnosis: central placenta previa.

The bladder roentgenogram was not made and would probably not have shown the condition, as the placenta was postero-lateral and not antero-lateral. The failures of this test can usually be ascribed to this fact, namely, the placenta is as often on the posterior as on the anterior surface.

Elective Cesarean section by low flap technic was done under ethylene anesthesia. The patient lost more than a moderate amount of blood from a uterus which was almost Couvillier in type.

On September 15th the patient had a profuse vaginal hemorrhage. The uterus was packed the 16th, 17th, 21st, and 23rd. On the 17th, hemoglobin was 26%, R.B.C. 1,600,000. Transfusions were given on the 17th, 19th, 21st, and 23rd, each 500 c.c. The patient was dismissed September 27th, 20 days

after admission. At that time blood examination showed hemoglobin, 71%, and R.B.C., 3,600,000.

Since writing this report, I have had another identical case, treated in the same manner, with no post-operative complications. The uterus in the latter case showed marked vascularization in its entire lower left area and broad ligament region to an extent that necessitated rotating to the left in order to incise in a free area to the right, whereas, in the above reported case, the uterus was of the Couvillier type to a moderate degree, i.e., generally vascular and offered no area of choice for the incision.

Placenta previa may be operated by the low flap technic if the placenta be laterally or posteriorly situated so that the lower anterior or mid-line of the uterus is not involved in its attachment. If the latter condition obtains, the classical technic should be chosen and if the uterus is too generally vascular, the Poro technic may be indicated as it is, also, in cases of new growths and of actual or potential sepsis. The Pfaneuf transverse low incision is dangerous in any case and should not be considered in placenta previa for very obvious anatomical reasons, viz., distribution of the blood supply.

Marked varicosities of the broad ligament corresponding to the site of placental attachment must always be considered and the uterus may be rotated so as to make one's incision lateral to the mid-line when necessary. The roentgenogram with the blad-

der filled with opaque solution (Ude, Weum, and Urner test) will determine this point. The frequent failure of this test in diagnosing placenta previa is due, in my opinion, to the fact that the thin edge anteriorly, in laterally or posteriorly situated placentas, does not have sufficient thickness or volume to show a positive result.

You will note that the cases reported represent the elective type of operation, utilizing the low cervical longitudinal uterine incision, laparo-trachelotomy. This operation is chosen because it is less dangerous by half than the classical and takes little if any more time to perform.

The immediate danger of peritonitis and adhesions is much less and the scar is safer in after pregnancies. The latter point is also true as compared with the Pfaneuf transverse incision and the longitudinal is much less likely to manifest threatening or dangerous hemorrhage. A study of the vascular distribution of the pelvic organs should convince the surgeon of this truth without subjecting his patients to comparative experimental trial.

Finally, I am impelled to reiterate that whatever improvement shall be achieved in obstetric mortality will be in proportion to the skill of the accoucheur in evaluating the indications, contra-indications and prerequisite conditions for any form of major interference in child-birth, including the Cesarean operation.

## CESAREAN SECTION\*

WITH AN ANALYSIS OF 127 CONSECUTIVE CASES

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To consider the removal of the child from the uterus through an incision in the abdominal wall is to consider one of the earliest historical surgical procedures. Cesones, or children thus delivered from dead mothers, were known at least 715 B. C. as evidenced by the *LEX REGIA* of Numa Pompilius.

Trautman of Wittenberg in 1610 is credited with having performed the first generally accepted Cesarean section, although there are some records indicating that J. Nufer, a swinegelder in Switzerland, had so delivered his wife in 1500. F. Rousset, in 1581, published a monograph reviewing fifteen cases, but it is doubtful if they were all authentic Cesarean sections.

Kayser, in Copenhagen, in 1844, reviewed the medical literature for the preceding 80 years and found that the mortality of this operation was over 62 per cent. Tarnier is quoted as stating that there was not one successful Cesarean section in Paris in

the entire 19th century up to his time, and Spaeth said the same thing in Vienna in 1877.

In this year also, Porro of Pavia devised his operation of supra-vaginal amputation of the uterus following section. This was supplanted by Sanger's operation in 1882 from which our modern technic is largely evolved. With progressing methods of control of hemorrhage and absorbable sutures, the rubber ligatures about the cervix to check hemorrhage and the use of silver wire sutures in the uterus, practiced originally by Sanger, were gradually abandoned. Apparently there has been little change in the actual technic in the performance of the so-called classical Cesarean section for the past twenty years.

With the experience of many years as a background, professors of obstetrics, such as DeLee and Williams, have essentially agreed that the indications for section are divided into two main groups, namely, the absolute and the relative.

Of the *absolute*, the following are generally accepted as indications:

\* Presented before the Fort Wayne (Allen County) Medical Society, April, 1939. Original presentation illustrated with moving pictures in color.



Contracted pelvis with conjugata vera of 6 or 6½ centimeters.

Immense child.

Narrowing of the outlet due to

1. Exostoses.
2. Irremovable tumors.
3. Stenosis of cervix or vagina.
4. Neoplasms prolapsed before the child.

The following are *relative* clinical indications for section:

Where the delivery might possibly be made by other methods, but where a section offers the least risk to life of mother, child, or both. These include, among others, the following:

1. Conjugata vera of 6½ to 9 centimeters.
2. Placenta previa.
3. Eclampsia.
4. Abruptio placenta.
5. Prolapse of cord.
6. Habitual death of the fetus.

The following report and analysis covers only the Cesarean sections personally performed by the authors themselves, and includes each and every section they have done over the past twelve year period.

In this series of 127 consecutive cases completing the twelve year survey, one might entertain the thought that this is without doubt further tangible proof of the tendency to Cesareanize at the slightest provocation. However, an analysis may be somewhat clarifying. Thirty-six different physicians, all with large general practices, referred these cases to us for operation. A conservative estimate, based upon reports from the physicians themselves of the combined deliveries of this group over this period, is in excess of 12,000. Two cases reported to us directly, due to previous Cesarean sections in the hands of capable men in other cities who had made diagnoses of generally contracted pelvises.

#### FREQUENCY

With reference to years it is interesting to note that in the so-called "boom times" of 1928, 1929 and 1930 the curve of case numbers increased, and then in the "depression years" correspondingly decreased. The year 1930 was the maximum, perhaps as a result of the enthusiasm of the peak year, 1929. The following list is arranged to cover cases per year:

1927..... 6 cases	1934..... 5 cases
1928..... 9 cases	1935..... 8 cases
1929..... 14 cases	1936..... 9 cases
1930..... 20 cases	1937..... 10 cases
1931..... 17 cases	1938..... 8 cases
1932..... 10 cases	1939..... 5 cases
1933..... 6 cases	—at completion of
	12 year period.

Again, in 1937, when general times became better, our Cesarean birth rate showed a similar improvement. Of course the economic situation undoubtedly does influence the general birth rate, but one probably would indulge himself in fanciful conclusions to assume that it plays much part in the Cesarean section field since there are so many other variable influencing factors.

#### AGE

A further analysis of the group might be of interest with reference to age:

Age	
15 to 19.....	11 cases
20 to 24.....	36 cases
25 to 29.....	33 cases
30 to 34.....	31 cases
35 to 39.....	14 cases
40 to 44.....	2 cases

In the earliest age classification there were two cases 15 years of age, one case 16 years of age, two cases age 17, three cases age 18 and three cases 19 years of age. One of the 15 year old mothers was feeble-minded, not married, and had a small, deformed pelvis. A trial labor of twenty-two hours was given her by the attending physician and, after no engagement was apparent, she was brought to the hospital where the bony pelvis deformity was determined and a Cesarean section performed. In the interest of society, a section of both tubes was done.

Another 15 year old mother had a fully developed eclampsia with repeated convulsions and a small, hard cervix.

The one case, age 16, was also unmarried, and was crippled from an early infantile paralysis. She had a generally contracted pelvis, a very low mentality bordering upon the high moronic plane, and had been in hard labor for 36 hours with no engagement. Here also a Cesarean was performed followed by bilateral salpingotomy.

One of the cases, age 17, had an acute exacerbation of chronic nephritis with the urine loaded with albumin and a progressive generalized edema. Therapeutic measures toward the relief of the nephritis were unavailing and the Cesarean section practically at term delivered the mother of a healthy female child. The maternal nephritis thereafter rapidly improved.

One of the 18 year old group had a massive child with no engagement after twenty hours of labor. Another of the 18 year group had an eclampsia at 6½ months, which eclampsia did not respond to the usual measures, and there being no appreciable softening or dilatation of the cervix, a section was advised. This fetus survived only a few hours but the mother convalesced uneventfully.

One of the group, age 19, was severely eclamptic in labor, but both mother and child survived. The other was a generally contracted pelvis with 19 hours' trial labor and no engagement.

The fact that over three-fourths of these cases fall in the age group of 20 to 35 is nothing unusual, for this is the age when the majority of women have babies. It would be of interest if some statistics were available to compare the dystocias ending in section in the young, i.e., under 20, with those having been normally and uneventfully delivered. It has been frequently stated that a pregnancy after a long interval predisposes to an increase of one-fourth in the duration of labor; that operative deliveries are increased more than three times; and that complications of toxemia, cardio-vascular dis-

ease, placenta previa, uterine inertia, etc., are definitely increased.

#### OCCURRENCE

Primiparae.....	75 cases
Multiparae.....	52 cases—as follows:
Para II .....	29
Para III .....	15
Para IV .....	5
Para VI .....	1
Para VII .....	1
Para VIII .....	1

#### INDICATIONS

##### Primiparae:

Generally contracted pelvis with adequate trial labor (conjugata vera up to 9 cm.).....	42
Eclampsia .....	18
Nephritis .....	2
Old primiparae—borderline pelvis—desirous of live babies, and subsequent sterilization.....	2
Bony deformity of pelvis (one from early infantile paralysis, one from trauma, and one congenital).....	3
Absolute contracted pelvis (conjugata vera 6 cm.).....	1
Acute yellow atrophy of the liver.....	1
Multiple fibroids blocking the outlet.....	1
Massive child with adequate trial labor.....	1
Bowel obstruction with monstrosity and hydramnios....	1
Transverse presentation, with dry uterus, slight dilatation and failing heart sounds of infant.....	1
Uterine inertia .....	1
Tetanic uterus after long trial labor with rupture of membranes and failing fetal heart sounds.....	1

##### Multiparae:

Flat or generally contracted pelvis with previous Cesarean section .....	14
Flat or generally contracted pelvis with previous difficult instrumental deliveries resulting in dead babies .....	7
Eclampsia .....	5
Prolonged trial labor with no engagement due to both large baby and borderline pelvis.....	4
Pelvic deformity (one congenital, two traumatic) with previous dead babies.....	3
Massive baby .....	2
Nephritis .....	2
Placenta previa with no appreciable dilatation of cervix .....	2
Monstrosity (one giant hydrocephalic).....	3
Placenta previa with slight cervical dilatation and prolapse of cord.....	2
Abruptio placenta with slight dilatation of cervix and previous section .....	1
Transverse presentation with dangerous thinning of lower uterine segment.....	1
Dry tetanic uterus.....	1
Premature deliveries and miscarriages, but no full term deliveries, with a borderline pelvis and desire for sterilization .....	1
Bowel obstruction .....	1
Bandel's ring .....	1
Ruptured uterus.....	1
Uterine inertia, 5 days labor, hard cervix.....	1

Among the primiparae, as evidenced from the above chart, the predominating causes for section were generally contracted pelvis, usually the so-called borderline cases insofar as pelvic measurements were concerned. There were 42 of these cases out of a total of 75 primiparae. Only one case in this series was in the "absolute indication" group, i.e., with a conjugata vera of 6 cm. or below. The majority of them were actually closer to 9 cm., but in all except the eclamptics there had been prolonged trial labor with little if any engagement before Cesarean was done. One case was done at the insistence of the husband and the patient after high forceps and version had both been attempted

in the home, and strange as it may seem, neither mother nor child seemed the worse for it. This system, however, is to be cordially condemned.

Eclampsia formed the indication for 18 of the Cesareans in primiparae. It might be that in a few instances delivery in these eclamptics could have been done in some other way, but in nearly every one of them convulsions had become fully developed before being brought to the hospital. One young woman, not reported in this series, died from eclampsia as she was being lifted from the cart to the operating table—about to be Cesareanized—but the family, standing by, forbade any delivery of the fetus even though she was about at the seventh month of her pregnancy. She unfortunately had not consulted any physician at all during her gestation and upon the onset of convulsions was rushed at once to the hospital.

One naturally wonders why, in this group of multiparae as listed above, 52 women who had been delivered previously would be obliged to have Cesarean sections. We felt that in that large group where Cesarean section had been performed previously, a second Cesarean was imperative because, unfortunately, we have seen several ruptured uteri in such cases.

Of the eclamptics, one had had three previous Cesarean sections; two had had two previous sections; one had one previous section and one had had a progressive nephritis with developing blindness but no convulsions.

The ruptured uterus case was in a 21 year old woman. She had had a Cesarean section 15 months previously for a generally contracted pelvis. This time she had been in labor in the hospital for four hours. Inasmuch as no progress was being made, a section was advised. Before she could be taken to the operating room, the uterus had ruptured. Upon opening the abdomen, the abdominal cavity was filled with blood. A stillborn baby was delivered and a supra-vaginal hysterectomy was done. The uterus had apparently ruptured along the old scar. The mother made an uneventful recovery and left the hospital on the fifteenth day after operation. The reasons for the other Cesareans in this group are in evidence from a study of the preceding chart.

Interesting cases in this entire series, including both primiparae and multiparae, include the following:

A primipara, 31 years of age, seven months pregnant, was admitted to the hospital with an acute bowel obstruction. For two weeks previously she had been carrying a four plus albumin in the urine and had a gradually rising blood pressure. The abdomen was immense. Upon opening the abdomen the obstruction was found to be primarily one of pressure from the pregnancy. A Cesarean was done. There was marked hydramnios with a fetal monstrosity which was dead. After the uterus was emptied, the distention of the bowels disappeared. The patient also had a bicornuate uterus. She made an uneventful recovery.

Other unique conditions in this series include an



acute yellow atrophy, two cases of bicornuate uterus (one with a pregnancy in each horn), one case with multiple fibroids practically blocking the entire pelvis. In one other case a prolonged and hard labor had torn the bladder loose from the lower uterine segment, and this lower segment was markedly thinned out. As the previous charts show, one patient had an abruptio placenta with several quite severe hemorrhages before she was admitted for section. One case at the time of section was found to have a gangrenous appendix, which was removed. To our surprise the patient convalesced from the operation uneventfully.

#### OPERATIVE TECHNIC

The technic, under a general nitrous oxide-ether anesthesia, used in operating, consisted of the ordinary surgical cleansing of the skin with ether, followed by painting with iodine and alcohol, or painting with tincture of Merthiolate. A midline incision  $4\frac{1}{2}$  or 5 inches long is made below the umbilicus. A large sponge is then packed on each side of the uterus and one above the fundus to prevent peritoneal soiling. In 27 of our group the placenta was encountered on the anterior uterine wall and had to be pushed aside quickly or disengaged before a foot could be grasped. We have never practiced lifting the uterus out of the belly before the child is delivered,—but do so afterward, gently wiping away the membranes with gauze.

The suture used in the thick uterine wall is 20 day chromic No. 3 and for the outermost layer, No. 1 chromic, using a long, running suture technic throughout, thus making three lines of suture.

Care must be used in handling or unnecessarily kneading a uterus, for alarming ecchymoses and hematmata can be produced by over-zealous attempts to stimulate its contracting action. Hot towels and gentle compression of the broad ligaments are of value in the event of uterine relaxation and undue bleeding. Pituitrin and ergotin are given intramuscularly at the time of the delivery of the fetus. The actual injection into the uterine body seems not only unnecessary but in fact offers another link in the chain to guard against infection in an already very vulnerable organ.

In the cases of prolapsed cord, the cord was sectioned at the placenta, the placenta delivered, and the protruding cord then drawn out vaginally by an assistant, thus not infecting the field.

The average time of doing a Cesarean section should be based upon the late Dr. Ochsner's advice, that is, "Neither insane haste nor imbecilic deliberation." Any operator with trained associates should easily complete a classical Cesarean section in from thirty to forty minutes. One of our cases, in extremis, with a failing circulation and marked cyanosis, was completed in 15 minutes with the patient in a semi-reclining posture.

Our technic in performing sterilization has been, in recent years, to bury the uterine end of the Fallopian tube into the uterine body and close it over with a purse-string suture. We do this because

in an early case the simple section of the tube with ligation and separation of each end was found insufficient and an undesired pregnancy ensued.

#### THE INFANTS

In this series there were 66 male and 62 female infants. One patient had twin boys, thus accounting for the 128 infants in 127 cases. There were eight stillborn infants—five boys and three girls—as follows: three in cases of eclampsia; one in which the mother had a ruptured uterus; one in which the mother was exceedingly obese and diabetic; one in which there was a prolapse of the cord; one in a case of abruptio placenta, and one monstrosity. Two other monstrosities died shortly after birth. One giant hydrocephalic lived a few days; and one baby girl, born totally armless—otherwise normal—died at 18 months of a pneumonia.

We have always avoided giving the mother morphine prior to a Cesarean section because of the delayed breathing effect it seems to have on the Cesareanized infant.

#### HOSPITALIZATION

As to convalescence in the hospital, the average length of time was  $13\frac{1}{2}$  days in bed, at which time the tension sutures were removed. We allow the patient to be up in a chair on the fourteenth day, when the silk skin sutures are removed. The patient usually goes home, ambulatory, on the fifteenth day after section. In the eclamptics there was almost invariably a rise in fever to 102 or 103 degrees for three or four days. There were stitch abscesses in three cases, one of which was in a very fat abdominal wall, and was very troublesome for one month, but eventually healed. With the exception of the eclamptics, the babies were usually put to the breast at the end of 48 hours. Almost routinely the patients were placed in high Fowler's position as soon as out of the anesthesia and with the exception of the eclamptics, who seem to be benefited by being permitted to bleed freely at the time of section, fluids were used copiously. Likewise, with these exceptions, ergot is given on the average of 15 minims every four hours for eight doses. Pitressin and enemata usually relieve any post-operative distention.

#### MORTALITY

The mortality of this series is based upon the deaths which occurred where the Cesareans were performed regardless of the fact that two mothers were moribund upon admission. There were five maternal deaths, as follows:

Case 1: Influenzal bilateral broncho-pneumonia with the patient comatose and the Cesarean performed at the insistence of the husband who wanted (and obtained) a living child, although the mother passed away a few minutes later.

Case 2: An acute cardiac dilatation in an individual who had suffered a gradually failing circulation and weighed 486 pounds at the time of surgery—literally, a mountain of fat. She survived

the section quite well but succumbed several days later.

Case 3: An eclamptic of a very violent nature.

Case 4: Also an eclamptic of great severity. In both cases 3 and 4, convulsions persisted after section despite all remedial measures.

Case 5: This one and only one death occurred from the usual cause of generalized sepsis. This was a young primipara who had a generally contracted pelvis and who had been in nonproductive labor for 70 hours and who, unknown to either the family physician or ourselves, had been vaginally examined by an ambitious practical nurse before admission to the hospital. This was, of course, a tragedy. It is indeed fortunate that the majority of the patients try to give an honest history in these cases rather than to withhold information which may so vitally affect them.

Thus, taking every case,—in sequence just as the referring doctor presented them to us for operation—where Cesareans were done on moribund mothers and hopeless cases to begin with except for the sake of getting a live baby, our mortality is 5 out of 127 cases, or 3.9 per cent. In all the rest of the cases where death of the mother was not inevitable before we did a Cesarean, we had but one death. This death was from the usual complications of sepsis so feared in the Cesarean procedure. On this basis, our mortality is less than 1 per cent.

#### CONCLUSION

In recent years there has been much written regarding the advantages of the so-called "low

Cesarean section" versus the "classical," with especial emphasis being placed upon the low mortality of the former.

In this series of cases all were done according to the classical technic. If one considers the true Cesarean deaths and not those due to eclampsia, pneumonia and heart disease where death was imminent and would have undoubtedly ensued regardless of what was done, our mortality of less than one per cent is very gratifying. This is especially true when one considers that the general mortality of favorable Cesarean sections in the entire United States is reported at slightly in excess of 4 per cent.

As to sequellae, or untoward effects resulting from classical Cesarean, perhaps some people have them. However, if they do, they have not complained to us. We have found, however, that bladder symptoms not infrequently follow the extensive dissection of that organ from the uterus, as is necessary in low type sections.

Probably the cases demanding Cesarean section, coming from more or less rural communities such as these essentially were, are better physical risks and more free from infection than in large medical centers where the ultimate mortality is reported as much higher.

In any event, any major surgery carries with it an element of serious danger, and certainly a Cesarean section should have a very definite indication before it is attempted and should be under no circumstances lightly approached, but utilized only as a valuable assistant to an outraged Nature.

#### ABSTRACTS

##### REPEATED FEEDINGS FOR STOMACH ULCER

Basing his methods on the fact that an empty stomach contracts actively and continues to produce gastric secretion, both of which are inimical to the stopping of the hemorrhage associated with ulcer of the stomach, John S. LaDue, M.D., Minneapolis, in *The Journal of the American Medical Association* for July 29, recommends immediate and repeated special feedings for all such cases.

Pointing out that the purpose of treatment of bleeding ulcers is to keep the stomach as completely at rest as possible, Dr. LaDue contends that keeping the stomach partly filled with food decreases the peristalsis (active contractions) and aids in inactivating and neutralizing those gastric secretions which might digest clots formed in the bleeding vessels or in the vessel wall itself.

Although many other competent authorities believe in giving no feedings during the initial stages of their treatment of bleeding ulcers, Dr. LaDue, as evidence of the effectiveness of his treatment, cites a mortality rate of only 1.3 per cent among seventy-five patients at Long Island College Hospital, Brooklyn, N. Y. Absolute rest in bed accompanied the treatment. He says that his method not only inactivates the secretion but it also maintains the general body nutrition and tends toward the prevention of an increase in blood pressure which might help to dislodge the blood clots forming at the point of perforation.

The diet used by him includes gelatin or orange juice every one and one-half to two hours in the initial treatment, with cereal, gruel, milk, lactose or cream

mixtures being added on the third day if there is no further sign of hemorrhage. Later poached egg and custard may be added to the diet.

##### METHODS OF RELIEVING SINUS DISEASE

The patient with sinus disease can be helped by local treatment, medication, diet, climate, immunization, infrared, ultraviolet or x-ray treatment and surgical intervention, John J. Shea, M.D., Memphis, Tenn., states in *The Journal of the American Medical Association* for Sept. 2.

"There is no ideal climate in our country where sinusitis does not exist," he maintains. "However, a change of climate is beneficial, and persons who live in the mountains may do better at the seashore or on the plains, while the inhabitants of the latter are improved by a sojourn in higher altitudes. In the summer months in regions of active ultraviolet radiation, resistant infections clear up. During the winter the climate best suited for the patient with sinus disease is warm, with moderate changes and a minimum amount of rainfall.

"The more chronic a condition is, the longer must be the climatic change. It is foolish to expect a radical improvement in a patient with chronic sinus disease by a month's sojourn. The patient should be kept away at least a full winter and spring, for a disappointing recurrence may follow the early return of a patient to his native city before the break of the bad weather at home. A patient who has improved one year should be advised to return for a second year, as colds may interrupt the normal development of the sinuses, leaving an arrested condition throughout life."



THE JOURNAL  
OF THE  
INDIANA STATE MEDICAL ASSOCIATION  
DEVOTED TO THE INTERESTS OF THE MEDICAL  
PROFESSION OF INDIANA

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OCTOBER, 1939

Editorials

WAR!

Again Europe has become a seething cauldron and the gods of war are in the ascendancy. Whether it is due to desire for territorial conquest or to the whims and fancies of mad men is beyond our present ken, but the cold, stark facts are that war again is rampant upon the face of the earth, and with this fact before us, there are things that we *must* do, just as there are things that we *must not* do.

We believe that we utter the thoughts that are in the minds of most of us when we pray that the United States will be able so to conduct its affairs that we will not be drawn into the maelstrom. Less than twenty-five years ago our minds were filled with the same thoughts, but we finally were forced into it, so our national leaders told us. We remember the horrible details of the World War. We recall its cost in human lives. Its economic cost is a vivid remembrance. So do we remember the setback that came to civilization as a result of the conflict that was supposed to be a "war to end wars"!

This is no time for oratory or inflammatory speech, no matter what may be our honest opinions. It is no time for "jingoism" of any sort, but it is a time when all thinking citizens should center their minds and their activities upon but one thing—maintaining a neutrality of the strictest sort.

It is said, probably with some truth, that certain interests, mindful of the profiteering that was rampant during the World War, are looking forward to our entrance into this European debacle. We must have faith in our authorities, it is true,

but we have the right to convince those authorities that we are decidedly in favor of a degree of neutrality which will enable us to carry on as usual in our own country.

Many of us have blood ties in various sections of Europe, and probably some of us still may look across the Atlantic, thinking of former home ties, but this is no time for the airing of such views. We are neutral; let us remain so in our words and in our actions. However, there is no good reason why one cannot *think*! We cannot help considering what our attitude will be *in case*—and farther than that we should not go.

"THE GREAT WHITE PLAGUE"

Many years have passed since Trudeau opened his small sanatorium in the Adirondacks, announcing that he was prepared to undertake the treatment of a limited number of cases of tuberculosis. This announcement was received in various ways by a doubting public, including no small percent of the medical profession. A few patients found their way to Saranac Lake and entered upon the routine outlined by this man, himself a former victim of the dread disease. Well do we recall the days of our youth, when a diagnosis of tuberculosis, then commonly called "consumption," was but a death warrant. Equally well do we recall that families unfortunate enough to have among their number a victim of this disease at once made it a deep, dark secret, almost equal to the fact that the household had hidden in one of its closets a skeleton of sorts. The death rate from tuberculosis seldom varied: it was well on to 100 percent.

Treatment was varied from time to time when it was announced that this or that doctor had found the remedy. Patent medicine men thrived on the sale of countless thousands of bottles of this or that nostrum. Newspaper advertisements flaunted certain "cures" for the affliction. We recall some of these ads, particularly one that preached long and loudly that "—'s Cure for Consumption" was the long sought panacea. (This same nostrum even now is being advertised in the press and via radio as a cough syrup!) Back in our home county, the sides of barns were used to emblazon the information that consumption could be cured by a few bottles of patent medicine. All this before the days of the Pure Food and Drug Act (for which we are so deeply indebted to an Indiana man, Harvey W. Wiley) and before the days of intensive study and research by countless hundreds of physicians in practically every country on the face of the earth, each of whom has added his bit to our present-day knowledge of tuberculosis.

Today, in our own state, we have several county hospitals, together with state institutions, devoted solely to the treatment of this disease. We recall the objections raised by tax-paying groups and individuals when it was proposed to open a county tuberculosis hospital; we have lived to see the time

when one or more such objectors have come to us with the declaration that they were wrong in such opposition, that they now saw the vast benefits which have been derived from our local hospital.

Indiana has done extremely well by her tubercular citizens; she is planning to do more for them and we have every reason to believe that in another decade or so the tuberculosis problem will be well on the way to solution within our state.

The mortality from tuberculosis has been so reduced as to bring from our more optimistic confreres some statements that are hard to believe. Not long ago we heard one highly enthusiastic tuberculosis hospital head make the declaration that within twenty-five years or so tuberculosis would be outlawed! While we cannot reconcile such a statement, we are ready to believe that within the next quarter century, if war and pestilence do not seriously interfere, tuberculosis will be well understood by our profession and its incidence will be very materially lessened.

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## THE BOARD SHOULD BE SUPPORTED

The Indiana State Board of Medical Registration is making strenuous efforts to circumvent numerous cases of evasion of the medical practise laws of the State of Indiana. This problem has been before the Board for many years and failure to do something about it can be laid to the fact that there are no funds available for the purposes of enforcement.

We have heretofore commented on this matter and have related the instance when, several years ago, by dint of cutting all possible corners, the Board was able to amass a fund approximating ten thousand dollars. Then came the Budget Act, and this reserve reverted back to the general fund, since which time the Board has been operating on a budget which barely covers the actual running expenses.

We recently had several communications from the secretary of the Board in which the assertion was made that numerous physicians are engaged in active practise within the state without proper license so to do; that in one of our larger counties there are several such cases, and that an official check-up would reveal a very large number of such irregularities.

With all the publicity given the subject in *THE JOURNAL* during past years, there still are many Indiana physicians who cannot understand why the medical practise act is not more efficiently enforced. There is only one way to correct the situation and that, of course, is the employment of a full-time investigator. Such an official would have to have a salary and a sizable allowance for traveling expenses.

The natural conclusion reached by the average physician is that such expense should be borne by

the State of Indiana. An experience of something like ten years as a member of the Board caused us to arrive at the conclusion that the State would not undertake this expense and at present we have no reason to change that opinion.

The fact remains that these evasions of the law exist and it is quite probable that a complete check-up would show that the drugless practitioners have among their number many such instances. We know of instances in the past where the licenses of deceased physicians were obtained by unscrupulous persons who carried on an active practise under such papers. We found one case in southern Indiana where a drugless licensee obtained a county certificate by going to the clerk's office and abstracting same from the official medical registry. It seems that this clerk, when entering into the record the registration of a physician who had come into that county from another county, issued the proper paper, then placed the old certificate loosely in the front of the book, and it was an easy matter for any one to take this old certificate and file it, after altering the name, in another county.

The recent influx of foreign physicians brought another problem which the Board has met by decreeing that such physicians must attend a recognized medical school in this country for one year before they are eligible for examination and licensure. Several of these applicants, after having been denied admittance into Indiana, have joined up with Indiana physicians and are in active practise. It is such cases as these that have the present attention of the Board. One foreign school graduate undertook to make a political assault on the Board but after the facts were properly explained the state official who had been approached announced that he would do nothing about it, and that the Board must be upheld.

All of which brings us down to the question of what to do about it. This is a mess that needs to be cleaned up; how shall it be done? As we have said, the solution of the problem calls for an expenditure of funds and it seems that these can be obtained only from the profession itself. The matter of an annual registration of all those connected with the healing art long has been before us; it has its proponents and opponents. Frankly, we are very much in favor of such a law as it seems to be the only way out. A registration fee of two dollars, annually, would not be a hardship on any physician and such a fee would provide the necessary funds for the enforcement of our medical law. It is too much to expect of a member of the Board that he give of his own time in making investigations of irregularities, and it seems certain that we cannot expect the State to take over this expense; hence, the matter of an annual registration should be most carefully considered by the House of Delegates. We are advised that the subject will be brought before that body and we trust that it will receive earnest consideration.



## COMMITTEE REPORTS

Some forty pages of *THE JOURNAL* for September were used in the presentation of reports of officers and various committees, covering their activities during the past year. For a good many years these reports were printed in small type and as a result they were not so widely read as they deserved to be. In the past few years, however, we have used the regular reading page type and have had few complaints about the space used. At the Indianapolis convention, last year, more than one member of the House of Delegates confessed that he had not read these pages, hence was not familiar with several matters that came before that body. It goes without saying that every House member should be very familiar with these reports, since much of the legislation coming before the House has to do with matters thus presented. And by the same sign we would strongly recommend that every member of the Indiana State Medical Association familiarize himself with what has been going on in Indiana medicine this past year. These reports give a very entertaining and instructive cross section of all our activities, and they are many.

Some of these reports are rather lengthy, a few are "wordy," but each carries information that every member should have at hand.

One report, that of our treasurer, answers all questions as to Association finances, questions that crop up at every session of the House of Delegates, as well as throughout the year. While it is true that this report shows a rather sizable group of assets, and while it also is true that every little while this "piling up of assets" is attacked, the fact remains that such a cash balance is a very good thing to have at hand. As is pointed out in some of these reports, no one can say as to when we may find it necessary to spend a considerable sum in the furtherance of our various programs. "Medicine at the cross roads" has become a rather trite saying, but the fact remains that at the present time we do not know what is in the offing. The present European situation, for example, may bring about emergencies within our profession, emergencies that must immediately be met and in meeting them we may have occasion to use funds. Hence we are very much in accord with the plan of having a sizable cash balance—it gives us a stability that may soon come well in hand.

The report of the Chairman of the Council will indicate just what that body does, even though they hold but three regular meetings each year. This body is directly in charge of *THE JOURNAL* and also regulates all the expenditures of the Association. Matters of policy are decided by the Council and, through its membership, it has first-hand knowledge of what goes on in every county medical society in the state.

Then comes the report of the Executive Committee, covering the regular monthly meetings held throughout the year. Lengthy, yes; but it is one of the most readable sections in the September

*JOURNAL*. This group spends an entire day in their deliberations and discussions and we often have wondered how they manage to give the time necessary to this work. In the report of the committee is given much information as to the financial picture of our magazine.

As might be expected, the Bureau of Publicity has a rather lengthy report, but one that is very informative. This committee maintains a weekly meeting schedule and covers the whole field of medical publicity. Its work has been studied by many other state medical organizations, many of which have adopted the plan so long in operation in Indiana.

Space will not permit the recording of the doings of all our committees. The thing we have in mind is the importance of having each member read the entire forty pages. Especially do we recommend to members of the House of Delegates, before they sign the registration slip for the first meeting of that body, that they take the time to carefully go over these reports, thus assuring themselves that they will know what it is all about!

## Editorial Notes

The post-graduate question continues to be of major importance in Indiana and while much progress has been made during the past year, there yet remains much to be done. We deem this one of the matters of most vital importance and we are advised that in those places where such courses have been given the attendance has been unusually good and that those in attendance express themselves as being highly pleased with the course. Just what plan is most feasible remains a question, but it seems that what would work very well in one section of the state might be somewhat impractical in another. The "circuit riding" plan, as it has been called by Dr. Baker, may have to be used in some sections. We are advised that Lake County is about ready to announce a plan that is being evolved by a special committee. They expect to make a formal announcement in the near future.

### THE FORT WAYNE CONVENTION!

1939 OCTOBER 1939						
SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	LAST QUARTER 6th    NEW MOON 12th    FIRST QUARTER 19th    FULL MOON 28th			

Medical folk constantly need to be on the alert! About the time we clean up something we regard as irregular, along comes another outfit with a plan that seems to be "edging in on our rights." This time it is an institution for the cure of alcoholism, a "chain" affair, so we are advised. They already have opened a branch in a northern Indiana city and the local medical society has advised its members to refrain from any connection therewith until it has the approval of the American Medical Association.

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As we go to press, we learn of the death in London of Dr. Sigmund Freud, known as the father of psychoanalysis. Dr. Freud was working on an analysis of characters in the Bible. It was a tragedy for the physician to be compelled to leave his native Austria from which he fled after Germany's occupation of the country, but even at the advanced age of eighty-three and after being forced to go to another country, he continued with his work.

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We've been attending state medical conventions for some thirty-odd years and each year we find ourselves more eager than ever to be on our way to these annual doings. Somehow or other, the Fort Wayne session seems to be most alluring and we are counting the days until the time comes to start. If you have not already made your plans to attend, it is not too late to do so. Even though you have not made a hotel reservation, the local hotels committee will find a parking place for you and the Missus. We are sure that once you look over the program as printed in *THE JOURNAL* for September, you will find both the entertainment and scientific features of so much interest that you will want to be there. If you have not given the September magazine a thorough going over, we suggest that you do so at once.

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According to no less an authority than Morris Fishbein, editor of *The Journal of the American Medical Association*, the most widely read pages in that magazine are "Tonics and Sedatives" and the obituary pages. Most physicians, it seems, are interested in the latter particularly to note the causes of death. In recent years it has been noted that the most common cause of death among physicians has been cardiovascular disturbances with some form of coronary disease the most prevalent. According to the annual report of our necrologist, Dr. James B. Maple, 58 Indiana physicians died of some form of heart disease during the past year, and this was 49.5 per cent of the total number of deaths in our ranks. So it would seem that here in Indiana the rather numerous types of cardiac disease take their toll as elsewhere. Coronary disease, used as a general term, is quite commonly

spoken of as the "doctor's disease," and there is small wonder that this is so. We know of no profession whose members, as a whole, have more mental and physical strain, each of which is generally recognized as a factor in bringing on some form of coronary trouble. Dr. Maple's report is of unusual interest, and we would suggest that you get out your September *JOURNAL* and give the report careful study if you have not already done so.

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Statistics now published in *The Journal of the Association of American Medical Colleges* show that last year, 1938-1939, the Indiana University School of Medicine was one of seven medical schools of the United States to which more than one thousand students applied for admission to the freshman medical courses. Surely this is evidence of the high regard in which the Indiana University School of Medicine is held. The 129 freshman medical students of the school for the year 1938-1939 were selected from 1,030 applicants, leaving 901 who had to be refused. Many of those who were refused admission were excellently prepared for medical work. Some had three or four years of premedical work of B grade or better, but they were out-of-state students. *No well-prepared, well-qualified, Indiana applicant was refused admission.* Because of the great number of men who apply for admission to medical school each year, the man who fails in medical school has the greatest difficulty in getting a second opportunity for matriculation in medical school. It is, therefore, the greatest kindness to a student to keep him out of medical school until he has developed studious habits, a capacity for long sustained application, and until he has laid a sound foundation for medical study. Statistics published in the Educational Number of the *Journal of the American Medical Association*, August 26, 1939, show that for the school year 1938-1939 the Indiana University School of Medicine enrolled the fifth largest freshman medical class of the medical schools of the United States. The freshman enrollment of 129 at Indiana was exceeded only by the freshman enrollment of the University of Illinois, Tulane University, Hahnemann Medical School and Jefferson Medical School. In total enrollment, the Indiana University School of Medicine ranked tenth among the medical schools of the United States. There are twenty-two state university medical schools in the United States, and among these Indiana ranks fourth in point of total enrollment. These facts are mentioned to show that the Indiana University School of Medicine is taking classes of considerable size, and while it is not the ambition of the school's deans to have the largest classes or the largest total enrollment, it is their purpose to meet the obligation to provide opportunity for medical education up to the limit of available facilities, and the above facts are proof that they are doing so.



## President's Page

### TUBERCULOSIS

Tuberculosis was known to mankind at the very dawn of history. From the Vedas, or religious hymns of the Hindus, the early history of consumption is revealed. Literary offerings of these ancient peoples are thought to have been produced about 5000 B. C. The humoral theory for this disease is recorded in Sanskrit about 1500 B. C. This theory was later accepted by the Greeks as the basis for their medicine. In Egypt, mummies have been uncovered which show evidence of Pott's disease of people living at least 4000 B. C. The study of these very ancient records, and a perusal of the literature of all people from the earliest until the close of the last century, gives this disease a very interesting background.

Sir William Osler once said, "By the historical method alone can many problems in medicine be approached profitably. For example, the student who dates his knowledge of tuberculosis from Koch, may have a very correct, but he has a very incomplete appreciation of the subject." For at least a generation there has been a great change in the incidence of tuberculosis throughout the civilized world. There has been a marked decrease in the rate in many places so that less than a quarter of the population is affected whereas, fifty years ago, three quarters of the population at some places were infected before the age of fifteen.

In the past, primary infection was the rule before adult life and nearly all of the older age groups received their initial infection early in life. However, there has been a change in these conditions, and now more people reach adult life without the primary infection in childhood. Consequently, many primary infections are not recognized in the adult as such, because they may appear in the atypical form. In those individuals whose living conditions simulate the primitive type, their infection presents a classical picture of the primary lesions of the adult and, on the contrary, those living under modern conditions in centralized populations present more atypical signs in the early lesions of tuberculosis.

In infancy and childhood, physical examination of the chest is often disappointing. Large pulmonary shadows are at times disclosed on the x-ray when there are almost no physical signs. In later childhood, the adult type of tuberculosis may appear and we see apical shadows and cavitation. General radiographic examinations of the chest will help to detect many hidden cases and will help eliminate this disease.

Present methods of treatment are advancing as fast as those for diagnosis. The indication for artificial pneumothorax has extended to the minimum lesion. Surgical collapse, once a great hazard, is now perfected. Thus great strides have been made, and mortality and morbidity rates have decreased markedly.

Tuberculosis is preventable, also curable, in the early stages. Every case comes from another, and it

should be eradicated. In checking our case histories, it is almost always possible to trace an infection to its source. In order to continue the progress which has been made, it is necessary to exert every effort to the utmost.

The education of the public is one of the first steps in prevention. A constant reminder of some sort or another helps impress it in their minds. Through newspaper stories, radio talks, moving pictures, magazine articles, meetings with various local clubs and organizations, and distribution of pamphlets and reprints on tuberculosis the public may be kept informed. The teaching of health in the schools is also of great importance, and is another way of calling the parent's attention to this disease. Tuberculin testing of children in grade schools, high schools, and colleges probably stresses the importance of the disease more than any one thing, and has been the means of finding a certain percentage of early cases of tuberculosis. In our state much of this work has been under the supervision of the local tuberculosis association, with the aid of the local physicians in the community.

Early diagnosis and proper care are the prime factors in the care of a patient with tuberculosis. Throughout the State of Indiana there are tuberculosis sanatoria to which a patient can be sent. It seems as though these patients get along better than those who remain in their homes, because they receive the proper treatment. They are taught how to stay well when they have recovered, how to do work which will not endanger their health or that of others with whom they associate. By removing the sick person from the community, one helps to prevent the spread of disease to others.

Dr. Parran has repeatedly stated that "Tuberculosis is one of the greatest public health problems facing us today. The progress has been brought about through the appreciation of scientific knowledge, the building of health machinery and the marshalling of community forces for better health. Tuberculosis has been brought down to the lowest point in history, both in the nation and in Indiana, but because of the winning fight there is more need than ever for a strong, energetic program to bring this disease under complete control."

Therefore, this is no time to relax our efforts; the tuberculosis program should be extended and intensified. The cooperation of the public, the physicians, and the national, state and local tuberculosis associations are necessary to maintain the progress which has been made. As long as there is a single infected person in any community, a tuberculosis problem exists which must be combated.

*E. M. Van Burskirk.*

# The Fort Wayne Session

**COME TO FORT WAYNE!**

*Now that the time of our annual meeting fast approaches, we invite all of the members of the Indiana State Medical Association to be with us. This meeting means much to our Allen County society, as it commemorates our one hundredth anniversary.*

*We are proud of our medical society, proud of our city, and proud of our coming meeting. Our aim is to make this the best and largest meeting in the history of the Indiana State Medical Association.*

*Come to Fort Wayne, October 10, 11 and 12.*

**MAURICE R. LOHMAN, M.D.,**  
*General Chairman Convention Arrangements.*

**ANNOUNCEMENT OF MEETINGS**

FORT WAYNE COLLEGE OF MEDICINE alumni will meet Wednesday noon, October 11, 1939, at Turner's Hall in Fort Wayne. (This building formerly was the old college.)

MILITARY LUNCHEON will be held at the Chamber of Commerce building, Wednesday noon.

X-RAY MEN will meet at 12:15, Wednesday, October 11, at the Indiana Hotel.

INDIANA UNIVERSITY CLASS OF 1924 reunion will be held Tuesday evening, October 10, at 5:30, at the Chatter Box, Anthony Hotel.

INDIANA UNIVERSITY CLASS OF 1929 reunion will be held in Parlor D., Keenan Hotel, Tuesday evening, October 10.

Presidents and secretaries of county medical societies are especially invited to attend the first meeting of the House of Delegates.

**BRING YOUR GOLF "STICKS"**

As chairman of the committee in charge of the golf tournament, I am, through this means, extending a cordial invitation to all members to take part in the tournament. There will be plenty of prizes—yes, prizes you'll be glad to win.

The tournament will be held at the Fort Wayne Country Club. It is recognized as one of the sportiest in the Middle West and will challenge every shot you have in the bag. The fairways are sprinkled so you'll earn every long drive you might make. Greens are deceptive and "rolly" . . . but perfect putting surfaces make the "thinker" or analyzer enjoy his putts. Several of the short holes and especially number 5, which is only 88 yards long, can cause plenty of trouble—this is a pitch shot and if you happen to be short—well, you start worrying. Unlike many golf courses, the layout of this 18-hole, 72-par course is hilly and always interesting.

Make your plans now. Get your handicap from your own club professional or club secretary. If you wish to play a practice round before the tournament, the club is available to all members of the Indiana Medical Association. A small greens fee will be charged.

The date of the tournament: Tuesday, October 10th, 1939.

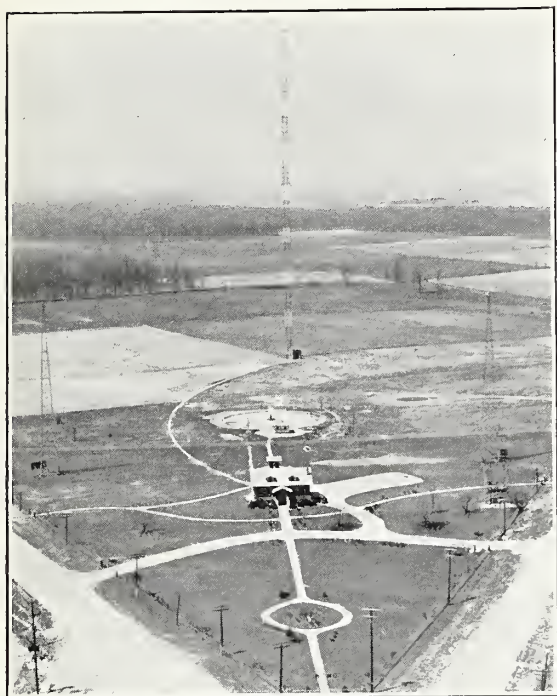
**ELMER C. SINGER, M.D.,**  
*Chairman Golf Committee.*

**SCIENTIFIC EXHIBITS TO BE SHOWN AT FORT WAYNE**

<i>Title of Exhibit</i>	<i>Sponsor</i>
1. MECHANICAL NOSTRUMS .....	American Medical Association
2. CUTANEOUS MANIFESTATIONS OF TUBERCULOSIS.....	American Medical Association
3. DIABETES .....	Metropolitan Life Insurance Company
4. FILM EXHIBIT .....	Indiana Roentgen Society
5. EXHIBIT ON CLINICAL PATHOLOGY.....	Indiana Association of Pathologists
6. TREATMENT OF BURNS.....	Dr. H. M. Trusler, Indianapolis, Indiana
7. PHARMACEUTICAL EXHIBIT .....	Indiana Pharmaceutical Association
8. CONSERVATION OF VISION.....	National Society for Prevention of Blindness
9. MIDDLETOWN MODERNIZES MEDICINE.....	Delaware-Blackford County Medical Society and Indiana State Medical Association
10. INDUSTRIAL HYGIENE .....	Indiana State Board of Health
11. POSTGRADUATE COURSES.....	Bureau of Child and Maternal Welfare, Indiana State Board of Health
12. URETERO-INTESTINAL ANASTOMOSIS.....	Dr. R. E. Brackin, University of Chicago
13. HUMAN STERILIZATION .....	Dr. L. P. Harshman, Fort Wayne, Indiana
14. LUTHERAN HOSPITAL EXHIBIT.....	Dr. J. J. Hayes, Fort Wayne, Indiana



## RADIO BROADCASTS DURING CONVENTION



*Radio Station WOWO at Fort Wayne*

In the interest of public education in matters of health and medicine, the following radio program has been arranged by the Committee on Publicity for the annual meeting of the Indiana State Medical Association. These broadcasts are offered through the facilities of Westinghouse Station, WOWO, in Fort Wayne, known through the air lanes as "Indiana's Most Powerful Broadcasting Station." WOWO operates on a frequency of 1160 kilocycles and reception should be easily possible throughout the state.

It is urged that members not only personally listen to these programs but that they tell their friends and patients of the information and entertainment to be derived from listening to them.

### PROGRAM

#### *Tuesday, October 10, 1939—4:45 p. m.*

Speaker: Thurman B. Rice, M.D., chief of the Department of Health and Physical Education, Indiana State Board of Health.

Subject: (To be announced)

#### *Wednesday, October 11, 1939—4:45 p. m.*

Speaker: Nathan B. Van Etten, M.D., president-elect, American Medical Association.

Subject: "Choosing Your Doctor."

#### *Thursday, October 12, 1939—12:45 p. m.*

Speaker: E. M. Van Buskirk, M.D., president of the Indiana State Medical Association.

Subject: "The Progress of Medicine."

## REFERENCE COMMITTEES 1939

### Reports of Officers:

Chairman—J. T. Oliphant, Farmersburg  
H. P. Graessle, Seymour  
A. C. Yoder, Goshen  
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### Sections and Section Work:

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M. D. Wygant, Mishawaka  
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### Rules and Order of Business:

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### Public Policy and Legislation:

Chairman—Jesse E. Ferrell, Fortville  
T. W. Oberlin, Hammond  
A. A. Thompson, Tyner  
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### Publicity:

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Simeon Lambright, Covington  
A. E. Stinson, Rochester  
Philip Corboy, Valparaiso  
John Lansford, Redkey

### Hygiene and Public Health:

Chairman—G. R. Daniels, Marion  
W. O. Hildebrand, Topeka  
W. L. Green, Columbus  
R. W. Lavengood, Marion  
C. C. Crampton, Delphi

### Amendments to Constitution and By-Laws:

Chairman—M. R. Lohman, Fort Wayne  
Will Thompson, Liberty  
F. T. Romberger, Lafayette  
Alfred Ellison, South Bend  
A. M. Hasewinkle, Markle

### Committee on Credentials:

Chairman—O. W. Sicks, Indianapolis  
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**Committee on Miscellaneous Business:**

Chairman—H. C. Wadsworth, Washington  
 Philip E. Yunker, Evansville  
 S. M. Cotton, Goldsmith  
 Ralph Lochry, Indianapolis  
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**Committee on Health and Hospital Insurance:**

Chairman—F. S. Crockett, Lafayette  
 Herman M. Baker, Evansville  
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 George Dillinger, French Lick  
 J. W. Thomson, Garrett

## CONFERENCE OF INDIANA HEALTH OFFICERS

October 9-10, 1939

HOTEL ANTHONY, FORT WAYNE, IND.

**MONDAY MORNING, OCTOBER 9**

9:00 A.M. Registration begins.

10:00 A.M. Meeting called to order.

Welcome—Hon. Harry T. Baals, Mayor  
of Fort Wayne.

Symposium: Pre-marital Health Examination Law.

Verne K. Harvey, M.D., administrative aspects.

Clyde G. Culbertson, M.D., laboratory aspects.

Wendell C. Tennis, the role of the county clerk.

T. B. Rice, M.D., sociological aspect.

Geo. W. Bowman, M.D., syphilis control aspect.

"Relation of the Health Department to the Physician."—Karl C. Eberly, M.D., Secretary, Ft. Wayne Board of Health.

"Advantages of a Public Health Nurse to a County Health Program."—Naomi Deutsch, R.N., Director, Public Health Nursing, U.S. Children's Bureau, Washington, D.C.

**MONDAY AFTERNOON, OCTOBER 9**

2:00 P.M. Introduction.—Edmund Van Buskirk, M.D., President, Indiana State Medical Association.

"Industrial Hygiene Problems in Indiana."—Louis W. Spolyar, M.D., Chief, Bureau of Industrial Hygiene, State Board of Health.

"New Food, Drug, and Cosmetic Legislation"—Joe Schneider, Chief, Bureau of Food and Drugs, State Board of Health.  
 John Taylor, Chief, Bureau of Dairy Products, State Board of Health.

"False and Misleading Advertising of Health and Beauty Aids."—K. E. Miller, M.D., Senior Surgeon, U.S.P.H.S., Federal Trade Commission, Washington, D.C.

"Sanitation Problems."—B. A. Poole, Chief, Bureau of Sanitary Engineering, State Board of Health.

**TUESDAY MORNING, OCTOBER 10**

9:30 A.M. "The Importance of Trained Public Health Personnel."—C. C. Applewhite, M.D., Regional Consultant, U.S.P.H.S., Chicago.

"Prevention of Blindness."—J. Warren Bell, M.D., Medical Director, National Society for the Prevention of Blindness, New York.

"Rocky Mountain Spotted Fever."—R. E. Dyer, M.D., Chief, Division of Infectious Diseases, U.S.P.H.S., National Institute of Health, Washington, D.C.

"Vital Statistics."—Halbert L. Dunn, M.D., Chief Statistician for Vital Statistics, U.S. Census Bureau, Washington, D.C.

**PROGRAM**

### POST-GRADUATE COURSE AND TUBERCULOSIS SCHOOL FOR PHYSICIANS

Boehne Tuberculosis Hospital  
 Evansville, Indiana

**TUESDAY—OCTOBER 17, 1939**

**WET CLINIC** (Seating Capacity 50)

**A. M.**

8:00 Bronchoscopy—Evipal Anesthesia

8:30 Extrapleural Pneumothorax—Gas-Oxygen Anesthesia

9:30 Intrapleural Pneumolysis—Avertin Anesthesia

10:30 Lobectomy or Thoracoplasty—Cyclopropane Anesthesia

PAUL D. CRIMM

12:00 Luncheon

**AFTERNOON SESSION****P. M.**

1:00 Laboratory Technique and Demonstration.....Grace L. Heimann

1:30 How to use Tuberculin.....Paul A. Bunn

2:00 General Management of Tuberculosis.....Howard N. Cookson

2:30 Differential Diagnosis.....Gardner C. Johnson

3:00 Correlation of Borderline X-ray Findings with Physical Signs.....William L. Potts

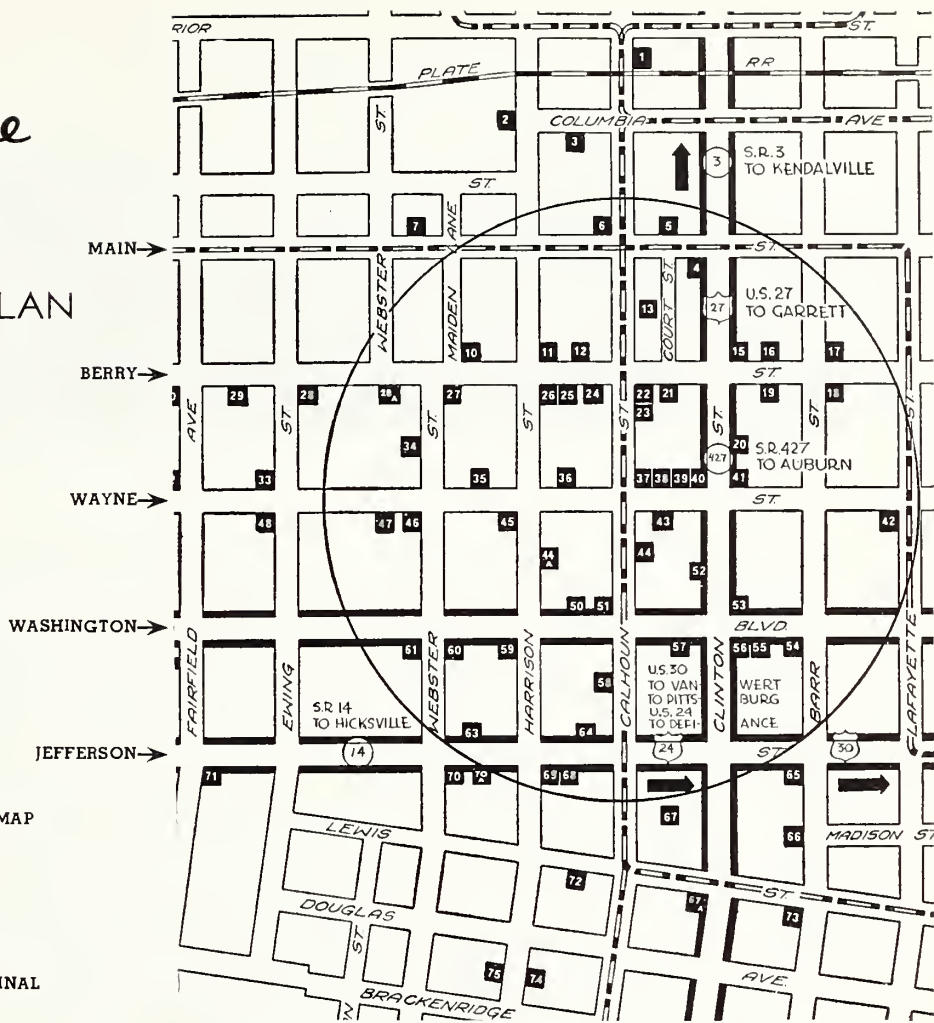
6:00 Dinner

7:30 Illustrated Lecture.....Henry C. Sweany,  
 Medical Director of Research,  
 Municipal Tuberculosis Sanitarium,  
 Chicago, Illinois.



# Fort Wayne

## DOWN TOWN STREET PLAN



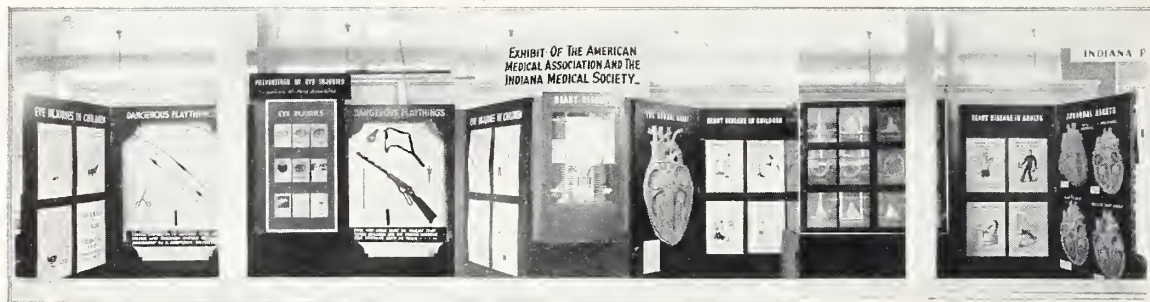
### KEY TO MAP

- |                                                    |                              |                                       |
|----------------------------------------------------|------------------------------|---------------------------------------|
| 1 Nickel Plate Depot                               | 35 American Legion (Post 47) | 56 SCOTTISH RITE CATHEDRAL            |
| 2 RANDALL HOTEL                                    | 36 Cooper Bldg.              | 57 PALACE THEATER                     |
| 3 WAYNE HOTEL                                      | 37 Cal-Wayne Bldg.           | 58 RILEY THEATER                      |
| 4 Farmers Trust Bldg.                              | 38 Kappel Bldg.              | 59 KEENAN HOTEL                       |
| 5 Swinney Block                                    | 39 PARAMOUNT THEATER         | 60 Reformed Church                    |
| 6 Transfer Bldg.                                   | 40 Dime Bank Bldg.           | 61 ALLEN HOTEL                        |
| 7 INTERURBAN TERMINAL                              | 41 KINDLER HOTEL             | 62 Baptist Church                     |
| 10 Elks Lodge                                      | 42 First Methodist Church    | 64 JEFFERSON THEATER                  |
| 11 ANTHONY HOTEL                                   | 43 Utility Bldg.             | 65 Catholic Community Center          |
| 12 Capitol Theater                                 | 44 Peoples Trust Bldg.       | 66 St. Paul's Lutheran Church         |
| 13 ALLEN COUNTY COURT HOUSE                        | 44-A RADIO STATIONS WOWO—WGL | 67 Cathedral of Immaculate Conception |
| 15 Elmore Bldg.                                    | 45 Central Bldg.             | 67-A Central Catholic High School     |
| 16 Standard Bldg.                                  | 46 PUBLIC LIBRARY            | 68 EMBOYD THEATER                     |
| 17 Home Telephone Co.                              | 47 Y. W. C. A.               | 69 INDIANA HOTEL                      |
| 18 CITY HALL                                       | 48 Lutheran Church           | 70 Knights of Columbus                |
| 19 Civic Theater                                   | 50 Knights of Pythias        | 70-A BUS DEPOT                        |
| 20 Salem Evangelical Church                        | 51 Noll Bldg.                | 71 Christian Church                   |
| 21 LINCOLN BANK TOWER                              | 52 Ft. Wayne Motor Club      | 72 METHODIST HOSPITAL                 |
| 22 Citizens Trust Bldg.                            | 53 Presbyterian Church       | 73 Central High School                |
| 23 Gaskins Bldg.                                   | 54 Y. M. C. A.               | 74 LINCOLN MUSEUM                     |
| 24 Guaranty Bldg.                                  | 55 Masonic Temple            | 75 POSTOFFICE AND FEDERAL BLDG.       |
| 25 Old First Bank Bldg.                            |                              |                                       |
| 26 BALTES HOTEL                                    |                              |                                       |
| 27 MEDICAL ARTS BLDG.                              |                              |                                       |
| 28 WAYNE PHARMACAL BLDG.                           |                              |                                       |
| 28-A Westminster Presbyterian Church               |                              |                                       |
| 29 SHRINE THEATER                                  |                              |                                       |
| 33 CHAMBER OF COMMERCE AND FORT WAYNE WOMAN'S CLUB |                              |                                       |
| 34 Moose Lodge                                     |                              |                                       |

IF YOU HAVE NOT MADE YOUR HOTEL RESERVATIONS,  
DO SO NOW!

REMEMBER THE DATES: OCTOBER 10, 11, 12, 1939

## STATE FAIR EXHIBIT—1939



*Part of 1939 State Fair Exhibit*

This year the state fair exhibit of the Indiana State Medical Association and the American Medical Association attracted a larger crowd than any previous year. Approximately 35,000 visited the building and many took advantage again of the blood pressure exhibit. This was the third year that blood pressures have been taken for the public. In 1933 it was done for the first time and since then has been so popular that patrons of the fair inquire about it when some other exhibit is shown. Usually the public is a little shy when confronted with a free medical test but it has learned from previous years that this test is simple, takes little time, and is important.

At no time this year were individuals solicited for their blood pressures. The people lined up in rows and waited for the test. Two thousand five hundred and ninety-three blood pressures were taken and more could have been registered if there had been the facilities present. It was apparent that the public realized the value of the test. In addition to this test, a Bausch and Lomb Ferree-Rand projector was used for testing the visual acuity of children's eyes. While it is designed to expose astigmatic errors, the eyes were not tested for such because of unfavorable light conditions at the building. The parents of those examined were advised of the condition of their children's eyes and if any defects were noted they were advised to see an oculist.

Besides the blood pressure and eye tests there were presented also in the medical exhibit displays (see photo) on how to prevent eye injuries showing such common dangerous playthings as the air gun, the sling-shot, the electric light bulb, fire-crackers, etc. There was also a display on heart disease showing a diagrammatic hemi-section of a normal heart, and the heart when affected by endocarditis, fatty degeneration, rheumatic fever and syphilis. There was shown a mechanical apparatus similar to one now being used at the San Francisco World's Fair that demonstrated well what happens in arteriosclerosis. An electric pump drove a san-

guineous-like fluid through a coil of metal tubing and also through a coil of rubber tubing simultaneously. The flow through the metal tubing was intermittent, while that through the rubber tubing was continuous. Thus the analogy between hardened arteries and the metal tubing and elastic arteries and the rubber tubing was clearly illustrated. Posters also described what to do for hypertension and what one might do to control it. Other posters were concerned with the rheumatic heart and how it affected the growing child.

Under the direction of Doctor Robert Masters, the ophthalmological division sponsored an exhibit on blindness together with the Board of Industrial Aid. Several boys from the blind school demonstrated weaving of cane bottoms in chairs and how to run a loom in making rugs. This attracted considerable interest. A diagrammatic cross-section of an eye was shown with streamers running from the cornea, the lens, the optic nerve, and the retina to legends which stated how blindness could be caused by disease, injury, or infection to those parts.

There was a slight increase in number of blood pressure examinations made this year—2,593 as compared to 2,382 last year. It is interesting to note that 2,500 blood pressures were taken in 1933. That year the average pressure was 145.9 systolic and 91.2 diastolic. Last year the average systolic pressure was 135.1. In 1933 the highest systolic pressure was 320, and the lowest was 90. The highest diastolic pressure was 175 and the lowest was 50. Last year and again this year it was found that of those examined approximately  $\frac{2}{3}$  were females and  $\frac{1}{3}$  were males. Last year 104 had diastolic blood pressures over 100 and 294 had systolic pressures over 150, making a total of 398 or approximately  $\frac{1}{4}$  of all those examined had abnormal blood pressures. This year 134 had diastolic pressures over 100 and 312 had systolic pressures over 150 making a total of 446 or approximately  $\frac{1}{4}$  of all those examined had elevated blood



ANALYSIS OF BLOOD PRESSURE DATA

Table 1																	
Age Groups	11-20		21-30		31-40		41-50		51-60		61-70		71-80		81-90		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Number	99	177	164	288	166	379	149	419	131	363	76	116	27	38	1	0	2593
Diastolic blood pressure of 100 or over	1	1	3	1	1	17	10	25	16	26	8	20	2	3	0	0	134
Systolic blood pressure of 150 or over with diastolics less than 100	2	3	9	7	12	24	14	57	22	76	16	36	9	24	1	0	312
M—male F—female																	

Table 2													
Systolic blood pressures	80	90	100	110	120	130	140	150	160	170	180	190	201 to 260
F.	4	32	140	350	455	298	222	108	69	39	26	11	33
M.	4	20	61	175	193	147	95	52	28	18	4	1	8
Total	8	52	201	525	648	445	317	160	97	57	30	12	41

pressures. This compares quite favorably with last year's results.

The data for this year is presented in the same manner as for last year except that the average blood pressure was omitted.

Comparison of these tables shows that in general they follow one another rather closely. This year we found 41 individuals with systolic pressures between 201 and 260 as compared to 29 of last year. The reason may be that many of those in whom we found high blood pressures came back this year for a check up.

The age group of 40 to 70 again claimed the majority of elevated blood pressures; however, even the teen age group had a few. An individual, age 52, colored, was found to have a pressure 118/70 in the right arm and 88/75 in the left arm. One girl in her twenties showing symptoms of thyrotoxicosis had an elevated systolic blood pressure. These individuals and those showing elevated blood pressures were advised to consult their family physician.

Probably one of the most important points brought out in the taking of these thousands of blood pressures has been to expose the fallacious idea prevalent in the minds of the laity that the

blood pressure should be one's age plus 100. We have found that many people around the age of 40 or 50 carry a blood pressure of 110 to 125. Yet if they discovered that their blood pressure was recorded as above, they concluded that they had low blood pressure which to them appeared definitely abnormal. If asked if they were dizzy, suffered from fainting spells, headaches, or other symptoms, they replied that they felt well. While it is true that the blood pressure usually tends to rise with age, the pressure does not follow this rule of age plus 100 in very many instances, and this rule should be discarded. Also it has been shown clearly that young people in their teens and twenties often carry a blood pressure between 135 and 150, usually accompanied by diastolic pressures between 65 and 85. Another interesting fact was demonstrated in that hypertension can be easily missed by feeling of the pulse alone.

Dr. Russell Sage, chairman of the exhibit, was assisted by Doctor A. D. Schaff of Jamestown, Doctor Carl Schneider, Doctor Howard Aldrich, Doctor Martha Souter and Doctor Gustavus Peters of Indianapolis, Doctor J. E. Ferrell of Fortville, Doctor Robert Wiseheart of North Salem and Paul Clouse of Indiana University School of Medicine.

ABSTRACT: COLLAPSE OF LUNG IN APPARENTLY NORMAL PERSONS

Collapse of the lung (spontaneous pneumothorax) can and does occur in healthy apparently normal persons, Staige D. Blackford, M.D., University, Va., declares in *The Journal of the American Medical Association* for Aug. 26. For proof he cites fifteen cases of the condition in college students.

However, pneumothorax should be considered of tuberculous origin until proved otherwise. The author's cases of pneumothorax were determined by x-ray examination.

"That this condition is not infrequent in college students is attested by the fact that eleven of these cases have occurred in the last five years, or approximately one case per thousand students in a session," he points out.

"Exertion in itself is not a necessary precipitating factor. Laughing, coughing, sneezing, straining at stool and running have all been reported as the immediate cause, but many cases occur while the patient is resting in bed or in a chair, and furthermore the condition may

usher in no symptoms. Patients are often seized with chest pain in the early morning.

"When symptoms occur, their onset is usually very abrupt. Chest pain is almost invariably present and is generally the first symptom. It may be so agonizing as to require morphine, or it may be so mild that it is described as 'oppression' or a 'heavy feeling.' The intensity of the pain may increase for several hours before it gradually begins to subside. Labored or difficult breathing may be absent, mild or marked. The rate and degree of the collapse are said to determine the kind and type of breathing."

The incidence of tuberculosis in patients who have had a simple spontaneous pneumothorax is no higher than in the general community. Dr. Blackford has followed up fourteen of his fifteen patients and these are known to be in good health after periods ranging from eight months to fifteen years.

He states that if pneumothorax is found, the patient should be confined to bed for a week. No additional treatment is necessary because recurrences cannot be prevented by any as yet known measure.

## THE JOURNAL SURVEYS ITSELF

The task of getting out a monthly medical publication is an interesting one, and not the least of that interest is in its reception by the members of our Indiana State Medical Association. All those connected with THE JOURNAL have a desire to know just what sort of a job we are making of it. The matter has been discussed by the staff on several occasions, and at the time of the Editorial Board meeting held last year during the Indianapolis convention, it was suggested that we ask our member-readers some frank questions.

During the past six months some five hundred members have received letters in which they were asked several questions. It was made clear that we were not seeking complimentary answers, but that we did want some definite facts. Some of the questions referred to problems that long have been before us; others had to do with possible suggestions as to new features for the future. For example, there had been under consideration some changes in make-up, particularly in reference to the front cover page, the idea being to improve the cover by having it carry only the title of the magazine. The replies received in answer to the questionnaire have made it very plain that such a change would be unwelcome, for a great number of our members state that they want to see what the number contains so that they may "pick out preferred articles for first reading," and, therefore, they want the index on the front cover.

No preferred list was used in mailing out these letters. Names were selected at random, and more than half of the replies came from physicians who are unknown, personally, to members of the office staff. Every county in the state was covered and replies were received from eighty-one of the ninety-two counties; hence, we have a pretty fair cross-index of the opinion of THE JOURNAL throughout Indiana. The accompanying map indicates the number of replies received from each county.

It was stated on the questionnaire that a signature was not required, but that it would be appre-

ciated, and only one reply was returned without identification.

A brief analysis of the answers received shows that 493 letters were sent out and 215 (43.6%) replies were received. We consider this a very good percentage since it is well known that physicians usually are not very good correspondents!

Details of the survey are as follows:

### Question 1: What part of The Journal do you read first?

Answers:

Scientific articles.....	62 (29%)
Editorials .....	61 (28%)
Index .....	37 (17%)
News .....	20 (9%)
"Cover to cover".....	13 (6%)
No regular routine.....	11 (5%)
Deaths .....	6 (3%)
Society proceedings....	3 (1%)
No answer.....	11 (5%)

(Note: 3% of the replies gave two "firsts" such as "Index and Editorials," and they are listed under each heading, making the total 103%.)

### Question 2: Do you read some of every issue?

Answers:

Yes .....	207 (96%)
No .....	5 (3%)
No answer.....	3 (1%)

### Question 3: Is there any part of THE JOURNAL that you would like to see (a) enlarged, (b) omitted, (c) changed?

Answers: (a) Enlarged: Editorials (5), News Notes (6), all parts (1), Case Reports (2), Jokes (2), Book Reviews (1), Personals (1), Scientific Articles (7), More Articles of Less Technical Content (1), Articles on Economics (1) and Therapy

(1). Make no changes (154).

(b) Omitted: Articles on Socialized Medicine (1), Local Society Reports (1), Indiana University News Notes (1). No changes (164).

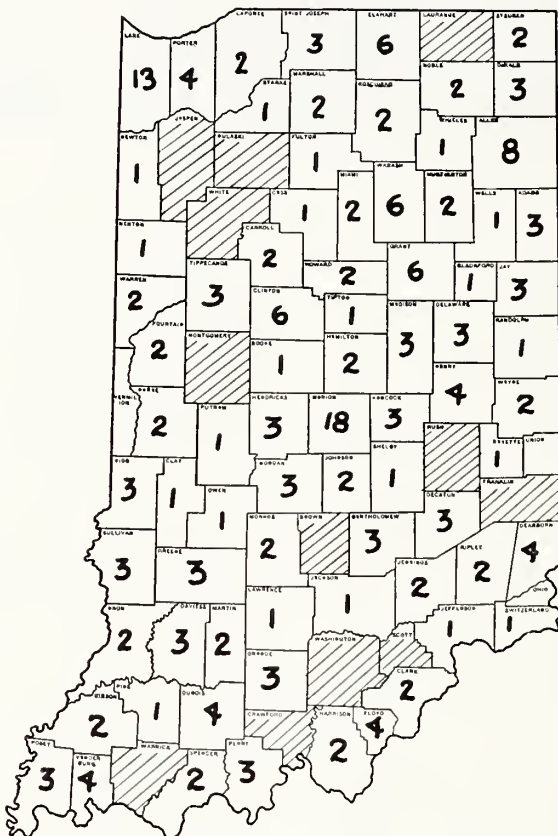
(c) Changed: Have signed editorials (1), Some Articles on Non-Scientific Experiences (1), Have Articles of Value to the Family Doctor (1). No changes (164).

### Question 4: What are your suggestions for improving THE JOURNAL?

Answers: Constructive suggestions .....	54 (25%)
Critical comment .....	2 (1%)
No suggestions to offer.....	136 (63%)

### Question 5: (a) Do you answer any of the advertisements? (b) Do you ask for samples offered in advertisements?

Answers: (a) Yes .....	87 (40%)
No .....	86 (40%)
Occasionally .....	30 (14%)
(b) Yes .....	66 (31%)
No .....	112 (52%)
Occasionally .....	24 (11%)



Figures indicate number of replies received.



Question 6: Comments (criticism or approval)

Answers: Complimentary .....	108 (50%)
Uncomplimentary .....	3 (1%)
No comments .....	56 (26%)
Constructive comments .....	21 (9%)

It was expected that the average reader would turn first to the scientific and editorial sections, but quite a few of them first look over the front page index.

Answers to the third question disclosed that a few definitely want certain departments enlarged, and others are definite in desiring to have no changes made. One writer suggests that we omit "crabbing" about socialized medicine, and another suggests that we omit altogether the local society reports.

One member suggests that editorials be signed. In explanation, it may be said that when the present management took over THE JOURNAL in 1933, the Editorial Board unanimously voted to publish the editorials unsigned. Very few state medical magazines have signed editorials—just now we can recall but two.

Another member, in answer to the question regarding changes in THE JOURNAL, made the succinct answer: "Too much gush." We are in a quandary to know just what department he had in mind.

Several members have asked for more case reports. Often we have asked for such reports, for we believe them to be very acceptable to the majority of our readers. "Shorter and fewer original articles," is the request of another, but that suggestion, as a matter of course, is not adaptable.

One letter asks for abstracts of international medical literature. While we agree that such a department would be of very great service, it is one of the impossible things for a state magazine to carry out successfully. It would mean that several members of the editorial staff would have to devote a great deal of time to the work, and would need to be able linguists. Also to be considered is the expense involved in subscribing to foreign magazines. We can only suggest to this writer that for the sum of eight dollars per year he may have a weekly review of world-wide medical literature by subscribing to *The Journal of the American Medical Association*.

Several of our correspondents have suggested a "lighter vein" department. Occasionally we have printed a story that we have picked up some place, but we have not endeavored to make it a regular feature. The Editorial Board may do something about this.

After reading all of the replies, we are impressed with the desire of many for more details of treatment and to have the papers written in less technical style.

The personal news notes are well received, and several members have asked for more of them. For the most part, these notes are taken from newspaper clippings obtained through a clipping bureau.

More illustrations were suggested by a few. We agree that a well illustrated medical magazine is of more interest than one with no cuts, but these illustrations are expensive. It is well to remember that THE JOURNAL operates on a budget which is fixed by the Council and it requires much planning to keep out of the red at the end of the year. THE JOURNAL has established the rule that two illustrations may be used in any one article accepted, but that additional cuts will be used at the expense of the author.

One writer asks for a "more vigorous editorial tone," and another objects to having too many articles on the same subject in one magazine. This latter objection has its basis in the "Topic of the Month" plan which has been followed in 1938 and 1939 and which has met with general approval. The plan has been adopted by some other state medical journals since its publication in our magazine.

One asks for "human interest stories," and we shall be glad to have these whenever they are of interest to the general practitioner. "More papers on heart disease," is another request, and while we believe we are doing well in this regard, such titles always are acceptable.

A few of the comments received are quoted:

"The best article I ever read in THE JOURNAL was on the technique of episiotomy; I use the method described and can easily remember it by the pictures."

"Medical ethics is becoming obsolete; articles on ethics should appear more frequently."

"Institute a campaign to give our boys who are the doctors of the future something more tangible in the art of the use of drugs. It is a pity to hear these boys who are entering practice asking what drugs to use; this knowledge which they should have is surely lacking."

"The general news section, dealing with personal items regarding physicians, should be enlarged. Believe closer relationships in the profession would result if some of the spirit which prevails in classes at graduation could be kept alive. Believe much life could be preserved by wider personal news coverage."

"I am of the opinion your JOURNAL is a friend to the medical profession."

"I would like more articles on how to take care of the patient in the home, rather than in the hospital."

"I feel that our JOURNAL is a credit to the State Society. The illustrations are especially good and are much above the average of other journals."

"I like to read personal correspondence, such as Drs. Cassaday and Austin had in the March number."

"Personally, I believe THE JOURNAL has been greatly improved in recent years."

"Omit the crabbing about socialized medicine; stick to medicine; cease permitting every or any

social worker from using the backbone of medicine to create jobs for themselves at our expense and discomfiture. In my opinion, the medical profession is to blame for the noise about socialized medicine."

"Continue making your editorials more vigorous in tone."

"I enjoy reading THE JOURNAL as it is interesting and edifying."

"I like the darn thing; the editorial staff is doing a bang-up job."

"I think we would all be benefited by an occasional article on the economics of medical practice and medico-legal phases that so often confront us."

"I regard our Indiana Medical JOURNAL, at present, far ahead of what it was several years ago."

"I should like to see THE JOURNAL take an active stand in efforts to raise the efficiency of our physicians and particularly to stamp out questionable practises among members of the Association."

"There are many doctors who could give a few

short comments about the philosophy of medicine. Quacks practise medicine, but the real fellow who helps the profession and the people is the fellow who *thinks* the *why* of things."

"I note that the contributors are more from the entire field of medicine and not so much from the pens of men who make a specialty of medical writing. This, I think, is good."

"I like the 'Topic of the Month' and hope you will continue it. To me, THE JOURNAL is a kind of post-graduate course. I like the editorial policy very much."

"Why not have a 'hobby corner' for physicians?" (We'll see how the hobby exhibit works out at the Fort Wayne meeting!)

"More emphasis on the treatment of diseases."

"I particularly admire the beauty and clearness of the illustrations."

"I find the editorials sound and the news section compelling."

## ABSTRACT

### NINE POINT PROGRAM IS URGED FOR CONTROL OF TUBERCULOSIS

A nine-point program for the nationwide control of tuberculosis, aimed at reducing its prevalence to that of diphtheria or typhoid, is presented for the medical profession and allied groups in *The Journal of the American Medical Association* for July 15.

J. Arthur Myers, M.D., Minneapolis, author of the program, believes efforts at control should provide for the use of public funds to supplement rather than supplant the practice of medicine. To accomplish this, he urges all physicians to take an active part in medical societies and in other organizations engaged in tuberculosis work.

"The following procedures," he states, "directed by the medical profession and carried out by its members in cooperation with closely allied groups and an informed public should suffice to control the disease:

"1. Administer the tuberculin test to every one. The test can be administered to several hundred persons in an hour by one physician. Probably not more than 50 per cent of the population of 130,000,000 are sensitized to tuberculin; therefore only 65,000,000 or less would need to be retested annually, and this number should definitely decrease in a few years. Therefore the total cost would not be large.

"2. Make x-rays of the chests of all positive reactors approaching and beyond adolescence. All adult reactors whose x-rays are clear, as well as those who subsequently become reactors, should have x-rays made of the chest annually. No one should attempt final diagnoses from shadows on x-rays alone; the x-ray simply serves to screen out those who have lesions which may be tuberculous.

"3. Make complete examinations of all whose x-rays present shadows which might be due to tuberculosis in order to arrive at the true diagnosis. Serious injustice is done by making diagnoses on insufficient evidence.

"4. Arrange for an adequate number of beds in private and public hospitals and sanatoriums so that all persons who have tubercle bacilli in their sputums which cannot be eliminated quickly can at once be removed from their homes. The strict technic for con-

tagious disease should be established whenever patients with communicable disease are treated. It is important to protect hospital personnel, as well as members of the patient's family, from contagious disease.

"5. Arrange to treat or keep under close observation all who have tuberculous lesions the progressiveness or activity of which cannot be determined at once. The physician can manage the disease of the majority of such persons in the home.

"6. Since tuberculosis is usually arrested, not cured, and is a relapsing disease, all persons whose disease is under control should be examined frequently.

"7. Arrange for the protection of citizens against the importation of persons with communicable tuberculosis by providing adequate examinations of all persons entering the country's ports and crossing its borders. Exercise the same precautions for those of other nations by examining adequately this country's citizens before they leave its ports or cross its borders.

"8. Support the veterinarians at every opportunity in their efforts to control the disease in animals, because it is transmissible to man. Their past accomplishments merit this and more.

"9. Take an active part in local and national tuberculosis associations, the local medical society, the American Medical Association and all other organizations engaged in tuberculosis work. In this manner provision may be made whereby the use of public funds will supplement rather than supplant the practice of medicine."

Dr. Myers states that: "At this moment there exists an opportunity to win another great victory over disease similar to the victories over smallpox, diphtheria and typhoid; this means sacrifice—the kind that physicians made in winning other victories. Let us continue the traditions of the profession in this respect by giving liberally of our time and effort in order to remove the demand for our service as far as the treatment of this contagious disease is concerned. Nothing that the medical profession could do at this time would bring more well merited respect, alleviate more suffering and prevent more untimely deaths than a concerted and successful effort to control tuberculosis."



## INDIANA COMPLETES SUCCESSFUL SUMMER ROUND UP CAMPAIGN

The following interesting report has been received from the offices of the Indiana Congress of Parents and Teachers, as submitted by the State Chairman, Mrs. Raymond M. Robertson. This is a splendid report, and early reports for the year of 1939 indicate that an even greater number of children have been examined in preparation for the fall school term of 1939.

Public Health officials, pediatricians, and general practitioners are in agreement that preventive medicine can best be practiced by focusing attention on examination and correction of the defects of the preschool child.

THE SUMMER ROUND-UP PROGRAM OF THE INDIANA CONGRESS ON PARENTS AND TEACHERS	
Number of Congress units registering for the Summer Round-Up .....	285
Number of Congress units carrying through the Summer Round-Up .....	180
Number of Congress units which met National Campaign requirements .....	172
Number of Congress units which held Spring Examination and Fall Check-up but no corrections made.....	26
Number of Congress units held only the Spring Examination .....	9
Number of Congress units were unable to carry on Round-Up or give definite information as to progress made .....	1
Total number of units reporting.....	216

### Children Examined

Number of children entering school for the first time (kindergarten or first grade), autumn of 1938.....	5894
Number of these children receiving Summer Round-Up Examination .....	4121
Number of parents present at these examinations.....	3259
Number of children examined in the office of family physician .....	766
Number of children examined in the office of family dentist .....	483
Number of children receiving tuberculin test.....	648

### Defects and Corrections

Number of defects discovered at spring examination.....	5137
Number of children found without defects.....	1046
Number of children referred to physician.....	1675
Number of children referred to dentist.....	1577
Number of defects found corrected at Fall Check-Up.....	1598
Number of children with defects corrected.....	971
Number of children consulting physician.....	605
Number of children consulting dentist.....	549

Protection Against Communicable Diseases	
Number of children found not protected against smallpox.....	2488
Number of children found not protected against diphtheria .....	2261
Number of children vaccinated against typhoid.....	164
Number of children subsequently protected against smallpox .....	732
Number of children subsequently protected against diphtheria .....	798
Number of children not included in the Round-Up group which were examined .....	499

Total number of defects discovered.....	615
Number of children found not protected against smallpox....	303
Number of children found not protected against diphtheria..	252
Total number of defects corrected.....	119
Number of children subsequently protected against smallpox .....	37
Number of children subsequently protected against diphtheria .....	36

Note: The Round-Up group includes only children entering school for the first time in Autumn of 1938.

Submitted by: Mrs. Raymond M. Robertson, State Chairman for Indiana.

## RESOLUTIONS PASSED BY THE INDIANA ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

Resolutions passed by the Indiana Academy of Ophthalmology and Otolaryngology at their spring meeting were as follows:

1. The Academy requested, by unanimous vote, that the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association be discontinued for this year, due to conflicting dates with the meeting of the American Academy of Ophthalmology and Otolaryngology; also that the officers elected be held over until the 1940 meeting.

2. That the Indiana Academy of Ophthalmology and Otolaryngology confer with the committee of the Indiana State Medical Association for Conservation of Vision regarding the formation of a permanent committee comprising three men from each of the two bodies. One man should be elected for a term of one year, two for terms of two years, and three for terms of three years, then upon expiration of their respective terms, the new members shall be elected for terms of three years, thus providing at all times four experienced men on the committee. The three men appointed by the Academy are: Dr. C. J. Rudolph, Dr. C. P. Clark, and Dr. Noel S. McBride.

3. That the Academy go on record as approving one per cent silver nitrate, in wax ampoules, for universal use as a prophylactic agent against ophthalmia neonatorum.

4. Motion for the appointment of a committee to study and recommend the amount of postgraduate work a physician should obtain in ophthalmology and otorhinolaryngology, or both, before announcing himself as a specialist to practice in the State of Indiana.

5. The Indiana Academy of Ophthalmology and Otolaryngology brings to the attention of the House of Delegates of the Indiana State Medical Association the importance of a resolution passed by the House of Delegates of the A.M.A., that the A.M.A. shall carry on a program of education to the public regarding the difference between the examination of the eyes by an oculist and an indifferent examination of one kind or another.

E. W. DYAR, M.D.,  
Secretary-treasurer,  
INDIANA ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY.

## Under the Capitol Dome

### THE HEALTH EXHIBIT AT THE STATE FAIR

An increased interest in health problems on the part of the Hoosier public was indicated in reaction to the health exhibits, in the opinion of Dr. Verne K. Harvey, secretary of the Indiana State Board of Health.

An attendance check showed that between 600 and 800 persons passed hourly through the health board's building, which was one of two health exhibit buildings on the fair grounds. On "Education Day" and daily after school hours there was a big demand for health literature.

One of the exhibits which attracted most attention was the community sanitation one, which depicted a model farm from sanitation viewpoint and an insanitary one. Hundreds of fair visitors took advantage of the opportunity to have their blood pressure tested. The current European war may have been responsible for part of the interest shown in the industrial hygiene exhibit which showed protective devices for industrial workers and their uses. Masks resembling war gas masks were included in this exhibit and they caused considerable comment.

Another exhibit which created a large amount of interest was the marijuana exhibit. The department of health has recently started a campaign under terms of a 1939 law to rid the state of this narcotic weed and to stamp out its use. Types of marijuana were shown and dangers of the weed explained both orally and by placards. A second marijuana exhibit, in cooperation with the state health department, was shown by the Prairie Farmer magazine.

Motion pictures on various health subjects also were shown and each showing was to capacity audiences.

There are two health buildings, one operated by the state Board of Health, and the other by the board in cooperation with various health agencies, including the Indiana State Medical Association, the Indiana State Dental Association, the Pharmaceutical Association, the State Tuberculosis Association, State Hospital Association, and Society for Control of Cancer.

Public health showed no unfavorable reaction to the excessive heat of early fall up to the middle of September, according to Dr. Verne K. Harvey, secretary of the Indiana State Board of Health.

An increased incidence of diphtheria and upper respiratory diseases might easily have occurred as a result of the unseasonable weather, Dr. Harvey said, but reports received at the board office showed that this danger had not materialized.

### WAR AND HEALTH

"War talk" in connection with the European war brought from Dr. Verne K. Harvey, secretary of the Indiana State Board of Health, the prediction that public health will play a more important part in any future war conditions.

People housed in cities, particularly, would have to be protected by health agencies in event of any war condition. Water systems and sewer systems could easily be disrupted, and health agencies would have to preserve these systems or provide substitutes.

In event of mobilization, Dr. Harvey said, there probably would be less epidemic outbreaks than during the World War when troops were mobilized.

Experience in the World War taught that boys from rural districts seemed more susceptible than those from cities—that is for such epidemics as measles, mumps, chickenpox, and other diseases of a like nature. The comparative isolation of country boys up to the World War period was given by Dr. Harvey as the reason.

Under present conditions the rural areas have, for the most part, been urbanized through increased use of automobiles and consolidated schools. As a result, he said, the country boys have just as many opportunities to take these diseases as the city children, and have them if they ever are going to. The result logically would be a decreased incidence of these diseases in training camps.

### MARIJUANA ERADICATION IN INDIANA

Dr. Verne K. Harvey, secretary of the Indiana State Board of Health, has initiated a program of eradication of marijuana and education of the public to the dangers of the weed, in compliance with a law passed by the 1939 session of the General Assembly.

Dr. Harvey has appointed Gene Ryan of Indianapolis, former Indiana state police detective, as state narcotic inspector in charge of marijuana eradication and enforcement. The program will be carried out in co-operation with local authorities, Dr. Harvey said. Mr. Ryan will work with Parent-Teacher associations, civic organizations, and similar groups in connection with the educational program, as well as take care of the work of spotting and eradicating the weed throughout the state. The program also calls for cooperation with Federal narcotic enforcement officers.

Dr. Harvey said that through co-operation with local officials and groups, the work of one man can be increased many times. Co-operation will be the keynote of the entire program, Dr. Harvey said.

Mr. Ryan spent several years as a detective in the state police department, working on several important cases, including the John Dillinger investigations. Since then he has done investigative work for the Chicago law firm of Winston, Strawn & Shaw. Mr. Ryan is a World War veteran and has been active in affairs of the American Legion.



## Deaths

LENORE LEEDS DOUGHTY, M.D., of Lawrenceburg, died July seventh, aged fifty-six years. Dr. Doughty was the wife of Dr. William M. Doughty who practices in Cincinnati. She was not in active practice. Dr. Doughty graduated from the Miami Medical College, Cincinnati, in 1906.

THOMAS M. CULVER, M.D., retired physician of Anderson, died June twenty-ninth, aged eighty-seven years. Dr. Culver was a graduate of the Eclectic Medical College, Indianapolis, in 1886.

ROY WINTON JOHNSON, M.D., of Indianapolis, died September fourth, aged fifty-seven. He was surgical advisor for the Aetna Casualty and Surety Company. Dr. Johnson graduated from Northwestern University School of Medicine in 1912.

EDWARD B. FLAVIEN, M.D., of New Haven, died at his home there August twenty-seventh. Dr. Flavien was sixty-three years old. He graduated from the Toledo Medical College, Toledo, Ohio, in 1898.

RUFUS J. DANNER, M.D., of Terre Haute, died August twenty-sixth, aged sixty-five years. Dr. Danner graduated from the Kentucky University Medical Department, Louisville, in 1901. He was a member of the Vigo County Medical Society, the Indiana State Medical Association and the American Medical Association.

CECIL B. O'BRIEN, M.D., of Greencastle, died September seventh, in an Indianapolis hospital. He was forty-two years old. He graduated from DePauw University and from the Indiana University School of Medicine in 1923. He was a member of the Putnam County Medical Society, the Indiana State Medical Association and the American Medical Association.

RICHARD STEPHENSON, M.D., of West Lebanon, died September first in a hospital at Rochester, Minnesota. He was seventy-two years old. Dr. Stephenson graduated from the Barnes Medical College, St. Louis, in 1898, and he was a member of the Fountain-Warren County Medical Society, the Indiana State Medical Association and the American Medical Association. He had practiced in West Lebanon for forty-one years.

GEORGE B. GRIM, M.D., of Evansville, died September fifth in an Indianapolis hospital. Dr. Grim was seventy-two years old. He graduated from the Kentucky University School of Medicine, Louisville, in 1895, and practiced in Oakland City and in 1911 settled in Evansville where he remained. He was a member of the Vanderburgh County Medical Society, the Indiana State Medical Association, and the American Medical Association.

PATRICK H. VEACH, M.D., of Staunton, died September fourth, aged seventy-seven years. He was educated at Central Normal College and the Medical College of Indiana, Indianapolis, from which he graduated in 1891. He served as trustee for Posey township for several years, was Clay county coroner three terms, and was a member of the Indiana legislature two terms. Dr. Veach was an honorary member of the Clay County Medical Society, an honorary member of the Indiana State Medical Association, and at the meeting of the American Medical Association in St. Louis last May, he was made an honorary affiliate fellow of that organization. He was active in civic and political matters in Clay county and was known as a splendid citizen.

MARY ANGELA SPINK, M.D., Indianapolis specialist in neuropsychiatry for many years, died at the home of her sister in Lisbon, New Hampshire, September third. Dr. Spink was seventy-five years old. She was president of the Fletcher Sanitarium in Indianapolis and was active in civic affairs in Indianapolis until the last few years when she had spent much of her time in her Florida home at Fort Myers. Dr. Spink was one of the first woman graduates of Indiana University; she received her degree from the Medical College of Indiana, Indianapolis, in 1887. One of the state's pioneer neurologists, she served as a pathologist at Central State Hospital, and later she helped Dr. W. B. Fletcher to establish the Fletcher Sanitarium in 1888. After Dr. Fletcher's death in 1907, she became president of the institution and held that office until her death. She had served as a member of the Indiana State Board of Charities for more than thirty years. In editorial comment, the Indianapolis *News* said of Dr. Spink that "Indiana counted her as among its most respected and beloved citizens."

Dr. Spink was a member of the Indianapolis Medical Society, the Indiana State Medical Association and the American Medical Association.

## News Notes and Personals

The home of Dr. and Mrs. Stanley Gordin of Alquina, near Connersville, was completely destroyed by fire, September twelfth.

Miss Loretta Hooper and Dr. G. L. Verplank, both of Gary, were married September ninth.

Dr. Mahlon F. Miller has opened an office at 334 Wayne Pharmacal Building in Fort Wayne. His practice is limited to obstetrics and gynecology.

Dr. Wendell C. Anderson of Mentone has succeeded Dr. Chester Hicks as director of the district health department with offices in Huntingburg.

Dr. and Mrs. L. C. Robbins have located in Bloomington where Dr. Robbins has taken charge of the district health department.

Miss Cecelia Collins of Springfield, Ohio, and Dr. Stephen C. Michaelis of Fort Wayne were married in Springfield, September twenty-eighth.

Dr. and Mrs. A. M. Hetherington, of Indianapolis, have returned from an extended trip through the East, during which they attended the New York World's Fair.

More than two hundred physicians were guests of Dr. Lynn W. Elston at his home in Stelhorn Park, Fort Wayne, August first. Golf and other outdoor games were enjoyed.

Dr. Fred Dick, Jr., of Huntington, has become associated with Drs. Brickley, Mead and Hamilton in the practice of medicine in Bluffton. Dr. Dick will specialize in internal medicine and laboratory work.

The Indiana State Board of Health has been authorized a WPA grant of \$55,140 to provide additional help at twenty-three clinics to treat infectious cases of venereal diseases among indigents. The fund is to pay clerical help and for nursing aid.

The recently organized Indiana Society of X-ray Technicians will hold a one-day meeting at the Columbia Club in Indianapolis, Saturday, October 21, 1939. Any interested physician is cordially invited to attend.

More than two hundred medical men and their wives attended the annual picnic of the medical staff of the Indianapolis Methodist Hospital at the Meridian Hills Country Club, July twenty-sixth. Dr. W. E. Pennington and Dr. J. C. Daniel tied for low gross score in the staff golf tournament.

Dr. Harry G. Steinmetz, director of the Bloomington district health department, has been awarded a fellowship in public health at Johns Hopkins University. Dr. L. C. Robbins of Indianapolis will succeed Dr. Steinmetz as director of the department.

Dr. Herman M. Baker of Evansville appeared on the program of the American Congress on Obstetrics and Gynecology in Cleveland, Ohio, in September. Dr. Baker led a discussion on the subject "Postgraduate Courses in Obstetrics for Physicians."

A tablet to the memory of Dr. St. Clair Darden, deceased physician of South Bend and superintendent of Healthwin Hospital from 1920 to 1932, was unveiled August twenty-seventh with approximately 250 persons in attendance at the ceremonies. The monument is a large granite boulder, bearing a bronze plaque, and it was given by young men and young women who as boys and girls attended Camp Darden.

With the dedication of the new Memorial Hospital for Cancer in New York City, its Board of Managers has announced the appointment of Dr. Cornelius P. Rhoads as director to succeed Dr. James Ewing who will soon retire after a long and distinguished administration.

A new laboratory for the study of filterable virus diseases is announced by the Squibb Biological Laboratories. Dr. Raymond C. Parker, biologist of the Rockefeller Institute for Medical Research, has been appointed to head the laboratory.

The forty-fourth annual meeting of the American Academy of Ophthalmology and Otolaryngology will be held in Chicago, October 8 to 13, at the Palmer House. An elaborate course of instruction with more than 100 specialists as teachers will be presented. Two foreign guests, Prof. Joseph Igersheimer, Istanbul, Turkey, and Arthur DeSa, Pernambuco, Brazil, will speak at section meetings. An Indiana member, Dr. J. K. Leasure, of Indianapolis, will present a paper on "The Importance of Nasal Secretion as a Defense Mechanism."



The *Rocky Mountain Medical Journal* published as a supplement to its July issue a fourteen-page pamphlet entitled "Historic Album of Specific Immunity in Tuberculosis." The supplement was sponsored by the Colorado Tuberculosis Association and the Denver Tuberculosis Society and is composed of biographical sketches and photographs which comprised a section of a scientific exhibit which was awarded a medal by the American Medical Association in 1938.

Health officers, nurses, engineers, school physicians, laboratory directors and other health specialists will attend the sixty-eighth annual meeting of the American Public Health Association and meetings of related organizations in Pittsburgh, Pa., beginning Sunday, October 15, and ending Friday, October 20. Headquarters will be the William Penn Hotel. Preliminary program may be obtained from the American Public Health Association, 50 West 50th Street, New York, N. Y.

Dr. Don D. Bowers, of Indianapolis, presented a paper on "Fibromyomas and Cancer of the Uterus" before the American Society for the Study of Neoplastic Diseases at the annual session in Washington, D. C., September ninth.

The Ohio Valley Allergy Society will hold a meeting at the Hotel Gibson, Cincinnati, October 28th and 29th, 1939. An informal session will be held at eight o'clock in the evening, Saturday, October 28th, and scientific papers will be presented on Sunday, October 29th, beginning at ten o'clock in the forenoon. Speakers will include Dr. Jonathan Forman, of Columbus, Ohio; Dr. John H. Mitchell, of Columbus, Ohio; Dr. G. E. Rockwell, Cincinnati, Ohio; Dr. Armand Cohen, Louisville, Ky.; and Dr. C. B. Bohner, Indianapolis. Dr. Bennett Kraft of Indianapolis is scheduled to discuss one of the papers.

All physicians in good standing are invited to attend the meeting.

#### SCIENTIFIC PROGRAMS OF THE CHICAGO MEDICAL SOCIETY

The Chicago Medical Society is planning a series of all day programs for the consideration of disease to be held on the third Wednesday of each month from October through April. In the morning and afternoon, there will be clinics, demonstrations, lectures and round table discussions on the general subject, certain aspects of which will be presented at the evening meeting. The daytime portion of the program will be held in one or another of the teaching institutions of the City but will be a program of the Society presented in a certain institution rather than a program of the institu-

tion presented to the members and guests of the Society. The evening meetings will be held at the Chicago Woman's Club Theater on Eleventh Street near Michigan Boulevard. Detailed programs will be furnished each month.

The topics to be considered at these meetings are as follows:

- October 18, 1939—Fractures, at the Cook County Hospital.  
8:30 P.M. The Treatment of Skull Fracture—Harry E. Mock, Chicago.
- November 15, 1939—Nutritional Deficiency Diseases. Thorne Hall on the Chicago Campus of Northwestern University.  
8:30 P.M. The Vitamin B Complex and Pellagra—Tom D. Spies, Cincinnati, Ohio.
- December 20, 1939—Cardiovascular-Renal Diseases. At one of the institutions in the West Side Medical Center.  
8:30 P.M. Arteriosclerosis Obliterans: The Modern Conception of its Social Significance, Diagnosis and Treatment—Irving S. Wright, New York City, N. Y.
- January 17, 1940—Industrial Medicine and Traumatic Surgery. St. Luke's Hospital.  
8:30 P.M. The Evaluation of Disability Due to Cardiovascular Disease.
- February 21, 1940—Topic and speaker to be selected.
- March 20, 1940—Endocrinology. The University of Chicago Clinics.  
8:30 P.M. The Misuse of Biologicals in Medical Practice.
- April 17, 1940—Obstetrics and Care of the New Born.  
8:30 P.M. Maternal and Infant Mortality in Chicago, 1935-39.

A luncheon for members and guests will be arranged at or near the institution, in which the clinical program is to be presented. A dinner will be held at the Chicago Woman's Club before the evening meetings.

That sufficient accommodations may be provided at the clinical meetings during the day, and sufficient reservations made for the luncheons and dinners, members and guests are advised that admission will be by ticket only. Tickets must be obtained not later than the Saturday preceding the meeting. The price of the luncheons will be 50 cents and of the dinners \$1.50. For clinic, luncheon and dinner tickets, apply to the Chicago Medical Society, 30 North Michigan Avenue, Chicago.

All members of the Illinois, Wisconsin, Iowa, Indiana, Michigan and other State Medical Societies are cordially invited to attend these all day programs.

The detailed program for Wednesday, October 18, is as follows:

- 9:00 A.M. to 1:00 P.M.—Clinics at the Cook County Hospital.
- 1:00 P.M.—Luncheon at the Professional Schools Y.M.C.A. Congress and Wood Streets.
- 2:00 P.M. to 4:00 P.M.—Clinics at the Cook County Hospital.
- 6:30 P.M.—Dinner at the Chicago Woman's Club.
- 8:30 P.M.—The Treatment of Skull Fracture—Harry E. Mock.  
Discussion by Loyal E. Davis, Casper Epstein, Eric Olberg, George W. Hall.

#### Program Committee

NATHAN S. DAVIS, III, *President*,  
H. PRATHER SAUNDERS, *Secretary*,  
HERMAN L. KRETSCHMER,  
CHARLES H. PHIFER,  
AUSTIN A. HAYDEN.

## INDIANA UNIVERSITY NEWS NOTES

### DR. DAVID BOYD HEADS DEPARTMENT OF MENTAL AND NERVOUS DISEASES

Appointment of Dr. David Boyd of Ann Arbor, Michigan, as head of the Department of Mental and Nervous Diseases of the Indiana University School of Medicine and Medical Center was announced last month by W. D. Gatch, dean of the school.

Dr. Gatch also announced that Dr. LaRue Carter, member of the school faculty since 1914, has been named chairman of the Division of Neurology in the same department.

Growth of the department under the leadership of Dr. Max Bahr, superintendent of the Central Indiana Insane Hospital, has made the selection of a full time director necessary, Dr. Gatch stated. Dr. Bahr will continue with the department insofar as his duties at the hospital permit.

Dr. Boyd was born in Detroit, Michigan, graduated from Lansing (Mich.) high school, received his bachelor of arts degree from the University of Michigan, and his M.D. from Jefferson Medical College, Philadelphia, Pennsylvania. He served 18 months as physician at the Ypsilanti (Mich.) State Hospital and for the last six years has served as assistant professor and assistant director of the Neuro-Psychiatric Institute of the University of Michigan.

Dr. Boyd holds the degree of M.S. in neuro-psychiatry from the University of Michigan, and is a member of the American Psychiatric Association, and of the Detroit Society of Neurology and Psychiatry. He is a diplomate of the American Board of Neurology and Psychiatry and is the author of numerous professional papers.

Dr. Carter, a native of Westfield, Hamilton County, has been a member of the medical school faculty since 1914. He graduated from the Indiana Medical College, later merged with the Indiana University School of Medicine, in 1904, and served two years internship in the Indianapolis City Hospital. He practiced in the West for a short time and for five years was a member of the staff of the Richmond State Hospital. He served with the American Medical Corps from 1916 to 1919, attaining the rank of colonel, and then returned to private practice in Indianapolis.

### I. U. HEALTH SERVICE

Under the supervision of Dean W. D. Gatch, who is director of the student health service at Indiana University, Dr. Charles W. Holland, Dr. Robert Speas and Dr. Edith Schuman were named University physicians. Mrs. Robert Speas has been named laboratory and x-ray technician and Miss Mildred King will serve as stenographer. The appointments and the plan for the student health service were made at the July meeting of the Indiana University Board of Trustees. Dr. Holland

has served as acting I.U. physician since the death of his father, Dr. J. E. P. Holland, last year.

Under the new health service which will go into effect at the University this year, a clinical history of each student will be recorded, and a physical examination of each student will be made as soon as possible after his admission to the freshman class. The services will include inoculation against smallpox, typhoid fever and diphtheria when the desirability thereof is indicated by the history and physical examination.

There will be dispensary service for diagnosis of all ailments complained of by students, the treatment of minor ailments and first-aid treatment of injuries. There will be infirmary treatment for not longer than four days of patients requiring bed care for only a short time, providing facilities are available. House care of patients will be provided only under special conditions.

Other provisions of the program will include provision of inexpensive drugs to students needing the same; certification of illness when a student is physically unfit to attend classes; thorough periodic inspection of student living quarters and eating places, with cooperation of University and state agencies, and didactic instruction in health topics, especially in venereal diseases, tuberculosis, diet and general hygiene.

The Student Health Department will obtain information of great scientific value on the incidence of various diseases and deformities among college students. The Health Department will pay not to exceed twenty dollars to any student, who requires, because of major illness, hospital care. The Department reserves the right to vary the amount of this payment according to the free money it has available after reserving a reasonable surplus to take care of emergency expenditures. The employment and supervision of dormitory nurses will be done by the Health Department.

Appointment of 21 resident surgeons and physicians to serve the coming year in hospitals of the Indiana University Medical Center was announced by Dr. W. D. Gatch, dean of the School of Medicine of the University.

Resident surgeons appointed are Drs. Herbert L. Egbert, Indianapolis, who has completed a fellowship in surgical pathology and research at the Medical Center; Richard E. Gery, Indianapolis; Daniel D. Stiver, Goshen; D. J. Caseley, Charleston, Ill., and Henry S. Tanner, Paris, Ill.

Resident physicians are Dr. Noel R. Bailey, Peru, obstetrics; Dr. J. L. Sims, Indianapolis, otolaryngology; Dr. Mary Alice Morris, Indianapolis, ophthalmology; Dr. John D. Van Nuys, New Castle, medicine; Dr. R. A. Henderson, Ridgeville, and Dr. B. J. Siebenthal, Bloomington, pediatrics; Dr. Harry Baum, Madison, cardiology; Dr. A. L. Marshall, Jr., Indianapolis, orthopedics; Dr. R. McC. Vandivier, Indianapolis, medicine; Dr. R. M. Nay,



Muncie, pathology; Dr. R. M. Ferguson, Indianapolis, medicine; Dr. S. A. Manalan, Gary, medicine; Dr. C. S. Culbertson, South Vevay, pathology; Dr. R. E. Estlick, Columbia City, otolaryngology.

All are graduates of the Indiana University School of Medicine except Dr. Tanner, who is a graduate of the Northwestern University School of Medicine. They were appointed on the basis of their scholastic record, training and general aptitude in their respective fields. Dr. John D. Van Nuys has been named director of admissions at the Indiana University Medical Center. The post was created, Dean W. D. Gatch said, to centralize admissions to the various units of the center. Dr. Van Nuys is a son of Dr. W. C. Van Nuys of New Castle.

Appointment of fellows in two fields at the Indiana University Medical Center has been announced by Dean W. D. Gatch. Dr. Marvin Hall of Tama, Ia., was named a fellow in radiology, and Dr. Felix Ballinger, Lubbock, Tex., was appointed to a fellowship in surgical pathology and research.

Selection was on the basis of outstanding work done in their respective medical schools, internships and residences.

## Books

**BAPTISM OF THE INFANT AND THE FETUS.** An outline for the use of Doctors and Nurses. Fourth Edition. By the Rev. J. R. Bowen, Chaplain, St. Joseph Mercy Hospital, Dubuque, Iowa. 12 pages, paper pamphlet. Price twenty-five cents.

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**DISEASES OF THE SKIN.** By Richard L. Sutton, M.D., Sc.D., LL.D., F.R.S., Professor of Dermatology, University of Kansas, School of Medicine; and Richard L. Sutton, Jr., A.M., M.D., L.R.C.P., Associate in Dermatology, University of Kansas, School of Medicine. 1549 pages with 1452 text illustrations and 21 color plates. Tenth edition, revised, enlarged and reset. Cloth. The C. V. Mosby Company, St. Louis, Mo., 1939.

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**STAMMERING.** Its Cause and Correction. By Benjamin N. Bogue, Originator of the Bogue Unit Method for restoring normal speech; Founder and Director of the Bogue Institute for Stammerers. 287 pages. Cloth. Privately printed.

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**EYE, EAR, NOSE AND THROAT MANUAL FOR NURSES.** By Roy H. Parkinson, M.D., F.A.C.S., Head Oculist and Aurist to St. Joseph's Hospital, San Francisco, Cal. Fourth edition. 243 pages with 79 illustrations. Cloth. The C. V. Mosby Company, St. Louis, Mo., 1939.

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**OFFICE GYNECOLOGY.** By J. P. Greenhill, B.S., M.D., F.A.C.S., Professor of Obstetrics and Gynecology, Loyola University Medical School, Chicago, and Profes-

sor of Gynecology, Cook County Graduate School of Medicine. 406 pages, with 106 illustrations. Cloth. Price \$3.00. The Year Book Publishers, Inc., Chicago, Illinois, 1939.

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**MATERNAL CARE AND SOME COMPLICATIONS.** By F. L. Adair, M.D., Editor. 194 pages. Cloth. Price \$1.50. The University of Chicago Press, Chicago, Illinois, 1939.

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**A HANDBOOK OF ELEMENTARY PSYCHOBIOLOGY AND PSYCHIATRY.** By Edward G. Billings, B.S., M.D., Assistant Professor of Psychiatry, University of Colorado School of Medicine. 271 pages. Cloth. Price \$2.00. The Macmillan Company, New York, 1939.

\* \* \*

**THE NEW INTERNATIONAL CLINICS.** Edited by George Morris Piersol, M.D., Professor of Medicine, Graduate School of Medicine, University of Pennsylvania, Philadelphia, Pa. Volume III, New Series two, 1939. 332 pages, illustrated. Cloth. J. B. Lippincott Co., Philadelphia, Pa., 1939.

\* \* \*

**MICROBIOLOGY AND PATHOLOGY.** By Charles F. Carter, B.S., M.D., Director Carter's Clinical Laboratory, Dallas, Texas. 755 pages, 165 illustrations. Cloth. Price \$3.25. Second edition. The C. V. Mosby Co., St. Louis, Mo., 1939.

\* \* \*

**PRINCIPLES OF CHEMISTRY.** By Joseph H. Roe, Ph.D., Professor of Biochemistry, School of Medicine, George Washington University, Washington, D.C. Fifth edition. 503 pages, illustrated. Cloth. Price \$3.00. The C. V. Mosby Co., St. Louis, Mo., 1939.

**DO YOU WANT TO BECOME A DOCTOR?** By Morris Fishbein, M.D. Frederick A. Stokes Company, New York, 1939. 175 pages. Price \$1.50.

Morris Fishbein has written another book, this time on a rather unusual subject, dealing with the problems confronting the young man or young woman who plans to adopt medicine as a profession. This book is one of a series contemplated by the publishers who plan to cover the field of the larger professions, choosing as authors those who have been distinctly successful in their various fields of endeavor.

The Fishbein volume, the first of the series, is a most readable little book, one that can well be read by anyone planning a medical career, as well as those already engaged therein. It offers some very wholesome advice to the young physician just out of school and oldsters will find it a very helpful book.

The author opens with a discussion of the problem of medical education, then takes the reader through the preparation for medical school, gives some very sound advice as to the choice of that school, including valuable data as to every recognized medical school in this country. The cost of a medical education is thoroughly presented and in that discussion he wisely suggests that some form of recreation should be provided for in the budget.

The matter of internship is not overlooked and the comments on this subject indicate a wide acquaintance with the hospitals of the country. Then come the State Boards, the *bête noire* of the average medical graduate. Dr. Fishbein offers some very excellent suggestions as to the method of "approach" to a State Board examination.

The question of adopting a specialty is well discussed and sound advice is given the student in regard to this weighty matter. And he offers very good advice to the young man, fresh out of school and having completed his internship, regarding a location.

What he terms "The Accessory Profession," meaning laboratory work of various sorts, occupational therapy, and other associated medical occupations, are well taken care of.

As is to be expected from such a versatile writer, the future of medical practise is discussed, as is the contribution of medicine to public welfare.

We believe this book should be in the library of every high school in the land, as well as in every college, where young men and women are studying for a career in medicine.

**NEW AND NONOFFICIAL REMEDIES, 1939**, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1939. Cloth. Price, postpaid, \$1.50. Pp. 617:LXVII. Chicago: American Medical Association, 1939.

Each year a revised list of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association as of January first is published in book form under the title of "New and Nonofficial Remedies." The book contains the descriptions of acceptable proprietary substances and their preparations, proprietary mixtures if they have originality or other important qualities, important nonproprietary nonofficial articles, simple pharmaceutical preparations, and other articles which require retention in the book.

A list of articles and brands accepted by the Council, but not described, is included in the book to cover simple preparations or mixtures of official articles (U. S. P. or N. F.) marketed under descriptive, non-proprietary names for which only established claims are made. Diagnostic reagents which are not used in or on the human body, and protein diagnostic preparations are not included in New and Nonofficial Remedies unless the determination of the status of these products by the Council has been requested by the distributor: If such products are found to be marketed in accordance with the Council's rules, they may be included in the list of undescribed, but acceptable articles.

A supplement to the annual volume of New and Nonofficial Remedies is published twice a year to bring up to date such current revisions and additions as have been necessary since its last publication. Every product included in the book is subject to the official rules of the Council. The comments to rules are changed occasionally by way of clarifying interpretation to insure fair consideration of all submitted preparations as new standards are recognized. Such constant and critical consideration of its contents provides the physician with a valuable reference list of acceptable new preparations on which to base his selection for use in treatment according to the established current practices of the profession.

New and Nonofficial Remedies for 1939 omits many articles which appeared in the publication for 1938. A few of these have been omitted by action of the Council because they conflict with the rules that govern the recognition of articles or because their distributors did not present convincing evidence to demonstrate their continued eligibility. Among these are: Biliposol, Sero-bacterins and Suppositories Salyrgan. A considerable number of others have been omitted as being off the market.

The 1939 New and Nonofficial Remedies, of course, contains the revisions which appeared in the supplements for the 1938 edition, and continues the plan of grouping together articles having similar composition or action under a general discussion. These discussions have undergone considerable revision in the 1939 edition. Further revision of statements regarding the actions, uses, dosage, composition, purity, identity, strength or physical properties of many of the articles has also been necessary in some cases. Noteworthy revisions are:

Anesthetics, Local; Bismuth Compounds, Organs of Animals; Vitamins and Vitamin Preparations and Liver and Stomach Preparations.

The indices of the new volume of New and Nonofficial Remedies are of the same order and plan as in previous editions. A general index lists accepted articles, including those not described. This is followed by an index to distributors in which appear all the Council accepted articles listed under their respective manufacturers. Finally, a bibliographical index is added for listing proprietary and unofficial articles not included in N. N. R. This includes references to the Council publications concerning each such article as has appeared in *The Journal of the A. M. A.*, Reports of the Council on Pharmacy and Chemistry, Propaganda for Reform, Vol. 1 and 2, or Reports of the A. M. A. Chemical Laboratory.

**ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR 1938**. Cloth. Price, \$1.00. Pp. 120. Chicago: American Medical Association, 1939.

This volume as usual contains noteworthy examples of the various kinds of reports made by the Council on Pharmacy and Chemistry: (1) preliminary reports; (2) supplemental reports on therapeutic or pharmacologic problems; (3) reports on the rejection of preparations offered for the Council's consideration.

Among the preliminary reports in this volume that on Sulfapyridine, which carries a special article by Dr. Perrin H. Long, a Council member who has been much concerned with the work on this drug, is perhaps of greatest interest. After the Food and Drug Administration had released the drug for the use of physicians early in 1939, the Council accepted various brands for inclusion in N. N. R. and in connection with the published descriptions issued another status report (*J. A. M. A.* 112:1836, May 6, 1939) based on a questionnaire sent to men who had been prominent in the experimental use of the drug. This report, no doubt, will appear in the next volume of reprinted Council reports. Other preliminary reports are the following: Allantoin, a preparation of glyoxyldiureid purposed to supersede the use of surgical maggots; and Sulfapyridine, published shortly before the Council acceptance of this new chemo-therapeutic drug.

Among the supplemental (or status) reports are those on Colloidal Sulfur in the Treatment of Chronic Arthritis, showing that much confirmatory evidence is needed to establish the value of this therapy; on Ergonovine, a careful study of the relation of this newly discovered principle to ergot therapy in general; and on Picrotoxin in Poisoning by the Barbiturates, showing the promise and the present limitations of this antidotal therapy.

Among the reports of rejection the following are noteworthy: Collodaurum, a "colloidal gold" preparation, promoted with unwarranted, exaggerated and misleading claims for its use in the treatment of cancer; Dermo-G, stated to be a mixture of Spermaceti, White Wax, Oil of Sweet Almonds, Sodium Borate, Precipitated Sulphur and Water, an unscientific and superfluous mixture marketed under a therapeutically suggestive name with exaggerated, unwarranted claims; Fru-T-Lax, a needlessly complex and unscientific mixture advertised to the public under a misleading and inadequately descriptive name with claims which are unwarranted; and Hyposols Sulisocol, claimed to be "Sulphur Colloid" in 2 cc. of "Autoisotonized Solution", exploited for use in arthritis with inadequate evidence of its therapeutic value. Other rejections are explained in the reports on Map and Myoston, Nupercainal-"Ciba", Pulvoids Sulfanilamide and Sodium Bicarbonate (The Drug Products Co., Inc.), Quinoliv, Sedormid, and Tri-Costivin.



## Societies — Institutions

**Cass County Medical Society** held its regular monthly meeting at the Cass county hospital, July twenty-eighth.

\* \* \*

**Elkhart County Medical Society** met September seventh, at the Hotel Elkhart, for a dinner meeting. Dr. Rogers Smith of Indianapolis was the guest speaker; he discussed modern types of treatment of neurosis and psychosis.

\* \* \*

**Floyd County Medical Society** held a meeting at New Albany, September eighth. Drs. Martin Strange and John P. Gentile discussed "Tuberculosis in Children." Attendance numbered sixteen.

\* \* \*

**Fort Wayne (Allen County) Medical Society** met at the Chamber of Commerce Building in Fort Wayne, September fifth. Dr. R. W. Terrill talked on "Treatment of Foreign Bodies in the Eye." Attendance numbered forty-four.

\* \* \*

**Fort Wayne Medical Society** met at the Chamber of Commerce Building in Fort Wayne, September nineteenth. Guest speaker was Dr. Robert L. Glass of Indianapolis, whose subject was "Treatment of Head Injuries." Attendance numbered sixty-eight.

\* \* \*

**Fountain-Warren County Medical Society** members met at Perrysville, September seventh. Dr. William M. Cerrode of Danville, Illinois, talked on "Disease of the Prostate." Attendance numbered twenty-six.

\* \* \*

**Huntington County Medical Society** members held a meeting at the Hotel Lafontaine, in Huntington, September twelfth. Dr. R. A. Solomon of Indianapolis talked on "Some Chest Conditions other than Tuberculosis." Attendance numbered twenty.

\* \* \*

**Owen County Medical Society** held a meeting at Spencer, September fifteenth. This was a business meeting and no scientific program was presented.

\* \* \*

**Randolph County Medical Society** held its first fall meeting at the Randolph county hospital in Winchester, September eleventh. Dr. Robert Fry of Indianapolis was the guest speaker.

\* \* \*

**St. Joseph County Medical Society** held a meeting at the Columbia Club in South Bend, August first. Mr. Paul Waddell, executive secretary, presented the society "production schedule" for 1939. Attendance numbered sixty.

\* \* \*

**Sullivan County Medical Society** held a meeting at the Mary Sherman Hospital in Sullivan, September thirteenth. Dr. Norman Beatty of Indianapolis was guest speaker; his subject was "Syphilis."

\* \* \*

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(Continued from page xix)

**Tippecanoe County Medical Society** members met at Lincoln Lodge, September 12, 1939, to hear Dr. Robert Moore of Indianapolis talk on "The Senile Heart." Attendance numbered fifty-two. The society is on record as being in favor of the annual registration law, and also the raising of dues if necessary.

\* \* \*

**Tri-County Medical Society** with members from Daviess, Martin and Pike counties, held the fifth of its series of "booster meetings" at Winslow, July twenty-fifth. On August twenty-second, physicians and their wives of this society were entertained at the cabin of Dr. H. C. Wadsworth, near Washington.

\* \* \*

**Wabash County Medical Society** held a meeting at the Wabash County Hospital, September sixth. Judge Byron Kennedy was the guest speaker, his subject being "Medical Legislation." Attendance numbered fifteen.

\* \* \*

**Whitley County Medical Society** members met at Columbia City, September twelfth, for a dinner meeting. Dr. L. P. Harshman of Fort Wayne talked on "Nervous and Mental Diseases." Ten members were present.

## INDIANA STATE BOARD OF HEALTH

### Bureau of Communicable Diseases

#### Monthly Report, July, 1939

Diseases	July 1939	June 1939	May 1939	July 1938	July 1937
Tuberculosis .....	172	157	160	207	487
Chickenpox .....	43	133	285	28	39
Measles .....	29	33	57	109	588
Scarlet Fever .....	103	232	560	99	138
Smallpox .....	36	40	141	79	29
Typhoid Fever .....	31	16	11	53	42
Whooping Cough .....	568	258	250	69	330
Diphtheria .....	30	19	30	39	42
Influenza .....	38	14	55	33	21
Pneumonia .....	25	26	40	44	31
Mumps .....	40	92	361	14	26
Poliomyelitis .....	1	2	0	3	31
Meningitis .....	5	2	1	3	5
Malaria .....	9	3	1	0	0
Undulant Fever .....	4	5	3	11	5

## CENTRAL NEUROPSYCHIATRIC ASSOCIATION

The Central Neuropsychiatric Association will hold its eighteenth annual convention in Indianapolis, October sixth and seventh, with headquarters at the Hotel Severin. Attendance is not limited to members; all physicians are invited to attend.

The Friday session will be held at the Indiana University Medical Center; the Saturday morning session will be held at the Medical Center and the Saturday afternoon session will be held at Central State Hospital.

## WOMAN'S AUXILIARY

OCTOBER

"The summer's throbbing chant is done."

Now for Fort Wayne—October 10, 11, 12!

**GREETINGS:** We extend a cordial invitation to all women of doctors' families to the eleventh annual breakfast to be held October 11, at 9:00 a.m. in the Hoosier Room of the Indiana Hotel. The business session will follow an illustrated lecture by Dr. Edgar F. Kiser.

We hope to have the pleasure and inspiration of your presence.

Your Hoosier President,  
Mrs. M. B. VANCLEAVE.

### Auxiliary Advisory Board

W. N. Wishard, Sr., M.D.  
F. M. Gastineau, M.D.  
Charles F. Thompson, M.D.  
E. M. Van Buskirk, M.D.

The Auxiliary is always a subsidiary to the Indiana State Medical Association, and all meetings and publications are subject to their approval.

### State Officers

President, Mrs. M. B. VanCleave, Terre Haute  
President-elect, Mrs. W. E. Tinney, Indianapolis  
1st vice-president, Mrs. M. J. Thornton, South Bend  
2nd vice-president, Mrs. C. V. Rozelle, Anderson  
3rd vice-president, Mrs. Charles Willis, Evansville  
4th vice-president, Mrs. G. B. Seward, North Manchester  
Recording secretary, Mrs. J. W. Baxter, Jr., New Albany  
Corresponding secretary, Mrs. C. N. Combs, Terre Haute  
Treasurer, Mrs. C. L. Bock, Muncie  
Councilor, Mrs. F. B. Wishard, Pendleton  
Parliamentarian, Mrs. C. F. Voyles, Indianapolis  
Historian, Mrs. U. G. Poland, Muncie

### Committee chairmen:

Legislation, Mrs. J. T. Wheeler, Indianapolis  
Exhibit, Mrs. Carl Schoen, New Albany  
Hygeia, Mrs. C. E. Ragan, Terre Haute  
Legislation, Mrs. V. K. Harvey, Indianapolis  
Organization, Mrs. John Carmack, Indianapolis  
Program, Mrs. E. O. Nay, Terre Haute  
Press and Publicity, Mrs. W. F. Hughes, Indianapolis  
Public Relations, Mrs. George Dillinger, French Lick  
Pioneer Memorial, Mrs. O. G. Pfaff, Indianapolis

The Woman's Auxiliary is composed of the various county auxiliaries. At present there are ten. The corresponding secretaries are requested to send monthly reports to the State Press and Publicity Chairman by the tenth of each month (not including July and August). The main thing is—let it be news! The handbook of information (forty cents) may be secured from our National Press Chairman, Mrs. James P. Simonds, 25 E. Walton St., Chicago. Also the National News Letter (one dollar), issued quarterly, is very valuable.

The topic for November is Diabetes and Drug Addiction. Speakers may be secured from your local medical societies. The September number of *Hygeia* contains a timely article, "Is Diabetes Curable?" by Frank N. Allen, M.D.

Every Auxiliary member should be a reader of *Hygeia* in 1940.

### Bureau Acts as Advisory Committee to Woman's Auxiliary

Some years ago the Bureau, through action of the House of Delegates, was made the advisory committee to the Woman's Auxiliary to the Indiana State Medical Association. Last year the Bureau recommended that the state association take action recognizing the work of the Woman's Auxiliary, with the result that the House of Delegates at the Indianapolis meeting passed a resolution so recognizing the Woman's Auxiliary. The Bureau at this time wishes



to express its appreciation of the farsighted action of the House of Delegates in officially recognizing the Woman's Auxiliary.

—Sept. issue, THE JOURNAL of the Indiana State Medical Association.

"What the frost has marred, the sunshine will not mend," is a good motto for preventative medicine. "Before the gates of excellence, the high gods have placed sweat. Long is the road and steep at first. But when the height is achieved, then there is ease." These lines from Hesoid reflect the spirit of Indiana's Auxiliary.

Mrs. W. F. HUGHES,  
Press and Publicity Chairman.

## EXECUTIVE COMMITTEE, INDIANA STATE MEDICAL ASSOCIATION

July 23, 1939.

Meeting called to order at 9:15 a. m.

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; Karl Ruddell, M.D.; E. M. VanBuskirk, M.D.; M. A. Austin, M.D., and T. A. Hendricks, executive secretary.

The statement of Receipts and Expenditures for June for the Association committees was approved.

### Membership Report

Number of members July 22, 1939.....	3,084
(95 honorary members)	
Number of members on July 22, 1938.....	3,025
Gain over last year .....	59
Number of members Dec. 31, 1938.....	3,087

### 1939 Annual Session at Fort Wayne

*Scientific exhibit.* The executive secretary reported that he had made a trip to Fort Wayne and that final arrangements had been made for housing the scientific exhibit.

*Scientific program.* Scientific program practically complete. Acceptance received from Dr. N. B. VanEtten,

newly elected president-elect of the American Medical Association, and he will be present at the banquet.

*Hall of Health.* This will be a special feature directed particularly to the attention of the general public and will be sponsored by the Fort Wayne Medical Society in conjunction with the Indiana State Medical Association.

*Resolutions to be presented by Committee on Conservation of Vision.* Several resolutions have been prepared by the Committee on the Conservation of Vision to be presented to the House of Delegates at Fort Wayne.

Resolution asking that a joint meeting be held at some future date of the Indiana State Dental Association and the Indiana State Medical Association, passed by the state dental association, brought to the attention of the committee by Dr. VanBuskirk. This resolution was forwarded by the committee to the Indiana Inter-Professional Health Council and the State Dental Association was to be notified of the disposition made of this resolution.

### Legislative, Legal and Social Security Matters

#### National

The committee took notice of the fact that Paul McNutt, former governor of Indiana, has been appointed Federal Security Administrator, which places health services, the crippled children's bureau, child welfare, and other social security branches of the government under his direction. His position is deemed by the committee to be very important from the standpoint of the medical profession and the Executive Committee instructed Dr. Ruddell and the executive secretary to contact Mr. McNutt in order to obtain his attitude toward such subjects as the Wagner bill, indictments against the medical profession, expansion of health services, etc.

#### Local

*Protests of Bartholomew and Lawrence County Medical Societies against the so-called Indiana University Act, H. B. 74.* These protests brought to the attention

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## Scientific Committee

Max Cutler, M.D., Chairman  
Sir G. Lenthal Cheatle, F.R.C.S.  
Henri Coutard, M.D.

Arthur H. Compton, Ph.D.  
Ludvig Hektoen, M.D.

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One 500 k.v. x-ray apparatus  
One 10 gram radium bomb.

of the committee, along with the editorial concerning the situation that had been prepared for publication in the August issue of *THE JOURNAL* and the editorial that appeared in *The Indianapolis Star*. In addition to that, the request for an opinion from the attorney of the association concerning the law from the Miami County Medical Society and a copy of the attorney's opinion brought to the attention of the committee. The committee instructed the secretary to obtain an unofficial opinion from the attorney general's office concerning the act. The committee also authorized the preparation of a bulletin to be sent to each county medical society and the legislative committeemen concerning the act and making certain suggestions to county medical societies in regard to the administration of the act.

The committee further suggested that a contact be made with the officials of the judges' organization in Indiana in order that a discussion of the bill and the working agreement in regard to the administration of this bill might be arrived at with that group. The committee also approved the suggestion that each county medical society appoint a committee to represent county medical societies in meeting with the judges and working out a plan for handling these cases. In addition the committee recommended that arrangements be made with each judge who is empowered by the act to commit patients to the University hospitals to refer the cases to a committee of the society, and the judge should abide by the ruling of the committee in disposing of the cases.

### State Board of Medical Registration and Examination

The attention of the committee was called to the work that is being done by Dr. A. H. Ellison of South Bend, chairman of the Committee to Study Cultists and Irregular Practitioners, and his committee.

### Organization Matters

Letters from Dr. West in regard to the membership of physicians who are not licensed to practice in Indiana brought to the attention of the committee and this matter was to be taken up by the committee at the next meeting when Mr. Stump, the attorney for the association, is present.

### State Board of Health

Copies of the report on maternity hospitals and a suggested letter to be sent to the secretaries of the various

county medical societies, signed by Dr. E. O. Asher, chairman of the State Board of Health Liaison Committee to Deal with Social Security Act, which committee has made the study, approved by the committee.

### Group Hospitalization and Voluntary Health Insurance

The following report upon the Governor's Committee which is studying this subject was made by Dr. Nafe:

"As an outgrowth of the meeting of Governor Townsend's committee to study the problem of hospital insurance for the State of Indiana, the officers of the committee, Mr. Wolfe, president, Mr. Denton, vice-president, Dr. Harvey, secretary, and myself, were appointed as a committee to recommend to the larger committee what steps this committee should take in regard to this matter."

"I am setting down briefly for your consideration my views as to what these recommendations should be. It seems to me that the state and national medical associations have gone on record now as favoring non-profit hospital insurance plans. Such plans are in operation in twenty-six states and many of the states have enacted, or are attempting to enact, legislation permitting of the formation of such plans. Therefore, we shall recommend that all efforts be directed toward the proper preparation of such legislation and the enactment of the same at the next legislature."

"Any stop-gap or temporary method of attempting to handle this problem by similar arrangement for forming an insurance company would be unsatisfactory. For the present, regular insurance companies will continue to be available for the writing of this insurance. Any insurance company plan that we might set up will have the same objections and the same features that are present in the case of insurance companies. It would take six months to a year to formulate any plan, and another six months to a year to get it in operation, so I recommend, with the above, the preceding program."

Information in regard to the Michigan plan for hospitalization and medical services under the name of "Michigan Medical Service, Inc.," sponsored by the Michigan State Medical Society at the last session of the legislature, brought to the attention of the committee.

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Word was received from William J. Burns, secretary of the Michigan State Medical Society, that the plan is now working.

Letter received from Dr. F. S. Crockett in regard to his contact with the Farm Bureau Federation. Copy of Dr. Crockett's letter mailed to each member of the Executive Committee and the committee expressed its appreciation of the work that Dr. Crockett is doing in this connection and approved a continuation of the work which he is doing in contacting the Farm Bureau Federation.

*New Jersey plan.* Copies of this plan were turned over to Dr. Nafe for study and report at the next meeting of the Executive Committee.

#### Postgraduate

Report made on the arrangements for the southwestern postgraduate series of one-day meetings which are to be held each month at Evansville. The first meeting is to be held August 8.

Dr. Nafe, as chairman of the sub-committee for the study of standardization of teachers' training institutions for health teaching, discussed the recommendations of his committee to this larger committee. (This larger committee is the Governor's Health Council.) The problem presented to this committee was the recommendation of what should constitute the minimum standard of health services in these teaching institutions. Dr. Nafe discussed what had already been done at the meeting of this committee and what he felt would be the final recommendation of his committee as regards these health services. The final meeting will be held later, at which time the recommendations will be made, and it is hoped that these standards of medical services will be a guide to the character of medical services furnished in these institutions. Dr. Nafe promised to present to the Executive Committee the final recommendations as they are adopted at the final meeting.

#### State Welfare Department

Action in regard to the conflicts that have arisen from the visual education program brought to the attention of the committee.

#### Indigent Sick

A list of WPA cases throughout the state and the services rendered was received from M. R. Ray, state compensation officer.

Request from K. E. Miller, M.D., senior surgeon, United States Public Health Service, that the state medical association cooperate with the Federal Trade Commission in cases that are to be brought against companies manufacturing and distributing patent medicines brought to the attention of the committee. The committee instructed the secretary to write a letter to Dr. Miller, offering the wholehearted cooperation of the state medical association in this work. The letter was to state that the committee would use its best influence to see that the physicians throughout the state cooperate with the government along these lines.

#### "Indiana Plan"

Letter of thanks received from the Delaware-Blackford County Medical Society for the backing which was given that organization by the state association in its recent display of the "Indiana Plan" at St. Louis.

The above minutes were approved in each separate part and as a whole August 20, 1939.

#### ABSTRACTS

#### NEW FEDERAL COSMETIC REGULATIONS ANTICIPATED

BY A. M. A.

#### Correction of Misleading Terms Augments Work the Association Has Been Doing for Years

The work of correcting the use of misleading names or advertising claims for cosmetics, now being carried out under the provisions of the recently passed Wheeler-

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**SURGERY**—Two Weeks Intensive Course in Surgical Technique with practice on Living Tissue every two weeks. General Courses One, Two, Three and Six Months; Clinical Course; Special Courses. Personal One Week Course Thyroid Surgery October 23rd.

**GYNECOLOGY**—Clinical and Diagnostic Courses starting every week. One Week Personal Course Vaginal Approach to Pelvic Surgery November 6th.

**OBSTETRICS**—Two Weeks Intensive Course October 23rd. Informal Course every week.

**FRACTURES AND TRAUMATIC SURGERY**—Informal Course every week.

**OTOLARYNGOLOGY**—Two Weeks Intensive Course starting April 8th, 1940. Informal Course every week.

**OPHTHALMOLOGY**—Two Weeks Intensive Course starting April 22nd, 1940. Informal Course every week.

**CYSTOSCOPY**—Ten Day Practical Course rotary every two weeks. One Month and Two Weeks Courses Urology every two weeks.

**ROENTGENOLOGY**—Special Courses X-Ray Interpretation, Fluoroscopy; Deep X-Ray Therapy starting every week.

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\$10,000.00 accidental death	For
\$50.00 weekly indemnity, accident and sickness	<b>\$66.00</b> per year

\$15,000.00 accidental death	For
\$75.00 weekly indemnity, accident and sickness	<b>\$99.00</b> per year

*37 years under same management*

**\$1,700,000 INVESTED ASSETS**  
**\$9,000,000 PAID FOR CLAIMS**

\$200,000 deposited with State of Nebraska for protection of our members.

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Omaha, Nebraska

Lea Act and the new Food, Drug and Cosmetic Act, augments an activity in which the American Medical Association has been engaged for several years, *The Journal* of the Association points out in an editorial in its Sept. 2 issue.

Referring to a recently issued list of false or misleading terms, the editorial says:

"Manufacturers of cosmetics who have followed the decisions of the American Medical Association Advisory Committee on Advertising of Cosmetics and Soaps have in many instances anticipated the suggestions as to terminology just issued by the Food and Drug Administration.

"Under the Food and Drugs Act of 1906 the cosmetic industry functioned with little or no restraint. Occasionally the unfair trade practice laws of the Federal Trade Commission were used to inhibit extraordinary claims and occasionally manufacturers stepped into therapeutic fields; otherwise there was practically no limitation on the use of misleading names or deceptive containers or foolish advertising claims. In 1938 the Wheeler-Lea Act and the new Food, Drug and Cosmetic Act were passed. Now the Federal Trade Commission can require a manufacturer to show cause for certain claims. If such cause cannot be shown, a stipulation or a cease and desist order is issued with a view to preventing such claims. Thus the Federal Trade Commission has ordered certain manufacturers not to use the word 'nonallergic.' The Federal Food and Drug Administration, which enforces the Food, Drug and Cosmetic Act of 1938, recently notified manufacturers, packers and distributors of cosmetics that certain names and statements used on the label of cosmetics contravene requirements of the statute which have now become effective. The official releases states that:

"The extent to which the use of such claims which may be regarded as false and misleading prevails suggests the propriety of a general notice to the trade to encourage appropriate label revision. It is, of course, not practicable to list all the claims that may be unwarranted; the following, however, are typical examples of some that are regarded as false or misleading:

Contour cream	Circulating cream
Crow's-foot cream	Enlarged pore preparations
Deep pore cleanser	tions
Depilatories for permanent removal of hair	Hair revitalizing preparations.
merely bleach the hair	Muscle oil
Eyelash grower	Nourishing cream
Eye wrinkle cream	Pore paste
Hair color restorer	Skin conditioner
Hair grower	Skin firm
Hair restorer	Skin food
Nail grower	Skin texture preparations
Products represented as depilatories but which	Skin tonic
Nonallergic products	Stimulating cream
Peroxide cream	Tissue cream
Rejuvenating cream	Wrinkle eradicator
Scalp food	Cosmetics represented as valuable because of their vitamin content

"A number of preparations have also been encountered which appear to be misbranded because they are represented as containing ingredients not actually present or present in insignificant proportions.

"The designation of a product by the name of one ingredient, to the exclusion of all others, may also result in misbranding. Paragraph (b) under section 602 (A) of the general regulations for the enforcement of the Food, Drug and Cosmetic Act provides in part that 'the labeling of a cosmetic which contains two or more ingredients may be misleading by reason (among other reasons) of the designation of such cosmetic in such labeling by a name which includes or suggests the name of one or more but not all such ingredients.'

"Formerly cosmetics were not advertised particularly to the medical profession. Then it was realized that physicians are interested in cosmetics, particularly from

the point of view of allergy. The Board of Trustees of the American Medical Association recognized the necessity for expert advice in this field and created an Advisory Committee on Advertising of Cosmetics and Soaps, whose function it is to advise *The Journal* concerning the cosmetic products that are advertised in its pages. One of the first problems attacked was the question of allergy. In 1937 the committee stated that it was unable to accept any statement to the effect that a product was 'nonallergic,' because even the simplest preparation may be allergic to susceptible persons. In addition the committee had opposed the promotion of such items as 'skin fresheners' and 'tissue creams,' since there is no evidence that tissue can be nourished or skin freshened by cosmetic preparations. In similar vein the committee has held that such terms as hair or scalp tonics or lotions for which therapeutic claims are made, such as treatment of falling hair, dandruff or scalp infections, are not acceptable for advertising. If these preparations are recommended for the treatment of skin diseases they come within the purview of the Council on Pharmacy and Chemistry.

"Other problems concern 'medicated cosmetics,' astringents and lotions. If a product owes its action to the presence of a therapeutic substance, it may come within the purview of the drug section of the new law. The 'antiperspirants' owe their value to the presence of a relatively large amount of aluminum salt, such as the chloride; possibly these may be classed as drugs rather than cosmetics.

"Common usage determines the names of widely used products; it is not always easy to decide whether or not a word which has been used is still misleading. For instance, the word 'bracer' has been used to define a mildly astringent cosmetic preparation for the skin. From one point of view this word indicates that the skin will be endowed with some vague enhancement of tone or resistance. However, when used alone the word may simply convey the notion that the product is a cooling and slightly counterirritant preparation. Terms such as these create difficulty for any regulatory body."

#### NUMBER PRACTICING RADIOLOGY HAS DOUBLED IN SEVEN YEARS

The number of radiologists in the United States has more than doubled within the seven-year period ending in 1938, indicating a more widespread availability of radiologic services, according to a report by the Bureau of Medical Economics of the American Medical Association, published in the Association's *Journal* for Sept. 2.

The report, prepared from data collected by the Inter-Society Committee for Radiology, states that in 1938 there were 2,191 physicians specializing in the use of x-rays and radium as compared to 1,005 in 1931. Consequently the population per radiologist of 122,614 in 1931 was reduced to 58,821 persons for each radiologist by 1938.

A trend towards an increase in the number of radiologists in communities with small populations is brought out by the study. In communities with less than 5,000 population there has been an increase from 28 radiologists in 1931 to 198 in 1938.

Analysis of the geographic distribution of radiologists shows that, while they are distributed in much the same manner as other specialists, there are proportionately more radiologists as compared with other specialists in the Middle Atlantic and Pacific states and proportionately fewer radiologists in the West North Central and East South Central states.

That the hospital is an integral part of the practice of radiology is indicated by the replies of those radiologists who returned questionnaires. Of 840 physicians, 802 stated that they were members of hospital staffs. Six hundred and twenty-three radiologists stated that they were heads of the department of radiology in the hospitals in which they practiced. However, 610 of the radiologists maintain private offices outside the hospitals.



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### THE QUALITY OF MEDICINE\*

NATHAN B. VAN ETEN, M.D.†

NEW YORK

What kind of medicine do you want? Do you want England's Medicine, or Hitler's Medicine, or Stalin's Medicine, or New Zealand's Medicine, or American Medicine?

Do you want Socialized Medicine, or State Medicine, or Democratic Medicine? Do you want impersonal medical care or do you want free choice? Do you want bureau medicine or medicine fostered and promoted by those who have been especially dedicated to the service of the sick? Do you want the doctor an employee of the State working limited hours for a salary?

Shall we be dominated by dictators or by the needs of the people? The future of medicine will be determined by our citizens. If our citizens are ignorant, the practice of medicine will suffer; if they are informed, American Medicine may go forward. Medicine has survived the rise and fall of many civilizations. I predict that its advances can be only temporarily delayed and that they will attain greater heights long after the actors of the present generation have left the stage.

An inspired propagandist says that there are forty million people in the United States who are suffering from the lack of medical care because their incomes are less than eight hundred dollars with the consequence that they are unable to maintain adequate standards of living. The remedy he prescribes is socialized medicine after the European manner. He views American evolution as immature because we hesitate to embrace social systems which seem to have failed in Europe and to be poor substitutes for developing programs which have brought medical care in America to higher accomplishments than anywhere else.

The propagandist admits American superiority which he credits to a higher standard of living. When he contrasts small countries, whose popula-

tions are homogeneous, to polyglot America, he pays us a real tribute. The difficulty of matching Denmark in the eradication of syphilis is obvious, but American Medicine is enlisted in the fight *for* that objective.

He says with finality that there is no further need for surveys to uncover the lack of medical care of the unfortunate forty millions—that we now know all there is to know about these neglected people.

On the contrary I believe that there is more need than ever to discover the extent of human suffering among those who are existing miserably and the extent to which medical care fails to reach them.

Every city in the United States has thousands of people who are handicapped by bad housing. Senator Wagner is quoted as saying that there are over four hundred thousand people in the City of New York who live in buildings unfit for human habitation. I can very well believe that story when I am told that there are two hundred and fifty thousand bedrooms in New York City which have no windows. Many of these rooms have multiple occupancy and all are potentially pestilential.

The Government-administered City of Washington is said to lead all our cities in slum miseries, as also it leads in the statistics of morbidity.

Every one of these city dwellers must be included in the forty million, but none of them can claim to be outside the areas of free hospital and medical care.

Every citizen of the City of New York may have emergency medical care free of cost at any moment of the day or night if he asks for it. We can well believe that it is seldom asked for when the need is not acute through accidental or tragic illness.

Many small towns have hospital facilities available to people whose incomes are eight hundred dollars, or less, or who have no income at all, and where a generous medical profession cares for

\* Presented at the annual banquet of the Indiana State Medical Association in Fort Wayne, October 11, 1939.

† President-elect, American Medical Association.

them free or at charges within their means. Many farmers fail to see eight hundred dollars in any year and are still able to pay for medical care.

No one can deny that there are communities which are poorly supplied with medical care as well as poorly fed and clothed and housed. No one can deny that eleven million people are unemployed. No one can deny that there are still a few sections of this country where the birth rate is still out of proportion to the supply of food or education.

No one can deny that there are local needs for hospital beds—while at the same time twenty per cent of all hospital beds are unoccupied.

It is, however, a distorted survey which tries to show that forty million people are failing to receive medical care while at the same time death rates are steadily falling. In New York City the statistics for 1939 are all showing new low records,—this is an accomplishment of American Medicine.

Americans are so hospital conscious that sixteen people enter a hospital every minute, day and night. A baby is born every fourteen seconds and half of these births occur in hospitals.

The fact that forty-seven per cent of all of our hospital beds are occupied by insane people can not all be charged to the failures of medical care—while much of it must be credited to social maladjustments. Surveys are needed more than ever. The Medical Society of the State of New Jersey has just finished a survey which might well serve as a model to reveal the true conditions in every State. It did not make estimates from occasional samplings of the population, but reported every county and every township.

This is not too difficult a task and must be done to discover all the facts of supply and distribution and need of medical care.

Every physician in the United States must be enlisted in the search for the truth upon which to build the foundations for a master plan. Improving living conditions is preventive medicine. It is both a national and a local problem. The New York situation probably involves greater difficulty and cost than those found in other cities, but it can be cured by New York money and New York effort. It might be well if the National Government would show the world how to do it by staging a demonstration in the District of Columbia.

I believe that every physician in the land should get behind slum clearance and demand action from all local and national authorities.

The propagandist proposes to cure all our health deficiencies by imposing upon the American people some of the European systems of sickness insurance. Sickness insurance abroad has not reduced morbidity or mortality, or the loss of time of the worker due to sickness. Foreign sickness insurance does not take care of the indigent. The indigent is outside the field of insurance and is the problem of the taxpayer.

We must remember our own troubles with compulsory Workmen's Compensation insurance. Al-

though this operation has been greatly improved, we must not forget the scandals which accompanied it and which still require constant vigilance.

Although the propagandist admits that "health insurance is not a panacea," he says that while "it is not the ideal system" he thinks "that under the present social and economic conditions of the country, compulsory health insurance combined with extension of public health services is the best possible solution." The propagandist wobbles again when he advocates the Wagner Health Act and says that it neither carries nor advocates a health insurance scheme. This bill was introduced on February 28, 1939, and on March 29, 1939, just a month later, as was expected, the Senator's son, Robert F. Wagner, Jr., an assemblyman, introduced a compulsory health insurance bill in the legislature of the State of New York in contemplation of enactment of the Federal measure. Cash benefits for disability and maternity care, he said, were included because the Federal bill makes provisions for aid to States which provide such assistance. The Wagner Health Act opens the door to potential graft which would dwarf into insignificance all of the old pork barrel schemes ever experienced in this country.

Very few people budget for anything except for rent and heat and light. Budgeting for sickness is now being inspired by hospital and medical service plans which involve small daily payments. These plans now subscribed to by more than three million people are helpful to many people and indirectly to physicians, but the experience of the past year has demonstrated such serious abuses of privilege by greedy subscribers that financial collapse is threatening, unless contracts shall be definitely limited and rigidly enforced. Surpluses melt away under excessive hospitalization and the purposes of group service are defeated.

It seems inevitable that the insurance principle shall be involved in plans for medical service—and it seems wise that many trials be made in the various States—such as are now proceeding in California and New Jersey.

The medical profession has developed the high quality of medical care that we now enjoy and earnestly desires to make it still better.

The propagandist asks whether the quality of medical care is really good in rural districts where he says many doctors still practice horse and buggy medicine. I would answer that query by saying that the country doctor has given a very good account of himself and the quality of care given to people of small or moderate means in rural districts is often of the highest type.

The general practitioner is the back bone of medicine. In my opinion he would be ruined if he were subsidized. He does the best he can for each of his patients because that is the only way he knows to hold his practice, and he has an honest desire to restore his patients to functional usefulness. By and large the general practitioner



is God fearing—keeps the decalogue and cherishes his sworn obligations. I would like him to take a more serious interest in local political machinery and use his great influence in the betterment of the public health through the practice of preventive medicine. I would like him to realize how great is his potentiality in stimulating his patients and all of their contacts in the guidance and information of legislators who seldom understand the physician's viewpoint.

Every physician should have a copy of the proposed Wagner Act and should be shown the danger to himself of its provisions. Every physician should in turn advise all of his patients and acquaintances, at once, and ask their help with their State and National representatives when they are at home.

Although this measure was not acted upon at the last session, it will appear at the next in amended form with an emotional appeal for the spending of millions for the promotion of public welfare—just another act in an orgy of spending for prosperity, and handing over the practice of medicine to bureaus in Washington. Every one should know that the estimated overhead of these bureaus in the administration of this Act will be six million dollars. Sending a dollar to Washington does not make it bigger. I am convinced that this State will be better off by keeping her money at home—by developing the strength of her own health department and by supporting her physicians in the practice of better medicine for all her citizens.

You must not take a negative position. Through the influence of systematized adverse propaganda an impression has been created that the medical profession and especially the American Medical Association is *against* all progress, *against* any change in delivering medical care, and is acting in restraint of those who would try new plans.

People should be told that these aspersions are untrue, unfairly presented, and they should be told what American medicine really stands for.

One hundred years ago, in 1835, the vital statistics of Philadelphia revealed that the average expectation of life was twenty-one years.

Preventive medicine, carried on by doctors, and mostly by private practitioners in the United States, has raised life expectancy to above sixty years. This has been accomplished largely through the salvage of children who otherwise would have died from the ravages of communicable diseases.

One hundred and fourteen thousand of the one hundred and twenty-five thousand actively practicing physicians of the United States are members of the American Medical Association. This is organized medicine.

Organized medicine stands *for* the protection of children from all communicable diseases by scientific methods and *for* the care and improvement of deformed or crippled children. *For* the protection of children from accident and injury—*for* the pro-

tection of children from blindness. *For* the protection of children from exhaustion of child labor. *For* the care and protection of children from tuberculosis. *For* nutritional improvement. Organized medicine through private practitioners and through hospital practitioners have been steadily improving the growth and health of children for many years.

Organized medicine is intensely interested in race improvement and in the science of immunology. Organized medicine gets very little help from legislators for the promotion of compulsory vaccination against smallpox. Thousands of children evade vaccination. Thousands of cases of smallpox, all preventable, prevail at all times in this worst vaccinated of all civilized countries. One case appeared in New York City last month and 14,335 were reported last year in the United States.

Organized medicine is constantly studying the problem of maternal mortality and recent statistics show substantial gains in a nation wide effort to salvage future mothers.

Organized medicine stands *for* prevention of communicable venereal diseases. It stands *for* public health—*for* sanitation—*for* good education—*for* good food and drug laws—*for* good housing.

It stands *for* better education of physicians to implement them for the practice of better medicine.

It stands *for* all the hospital beds that are needed and placed where they are needed. It is *for* all the state medicine that is needed for the care of the insane, the feeble minded, the tuberculous, and the care of the indigent. It is *for* every effort that can be made by public health services for the eradication of syphilis. It is *for* preventive medicine of all kinds. It is *for* co-ordination of all national health services, except those of the Army and Navy, into one National Health Department headed by a Secretary of Health.

It is *against* compulsory sickness insurance and is *against* the administration of medical practice by national bureaus.

It is *for* the preservation of the practice of medicine by the family physician as far as possible. The manners of medicine will change and will carry the old family doctor into history.

The old family doctor has nearly finished his career. He has carried the tradition of true philanthropy into every personal relation. His devotion to his self imposed obligations has kept him out of the public notice. He quietly answers the call of the sick without self consciousness or self pity. He carries on unnoticed unless like Doctor Dafoe he officiates at a quintuplet delivery or performs some dramatic service which is heralded in headlines. His skill is unknown beyond the immediate circle of his limited acquaintance. He never advertises. He holds no public office. He can not leave his patients long enough to go

to the legislature. His place is at home trying to keep people well or curing the sick. His influence upon public affairs is small because he is too busy to become an active partisan. He does not make much of an income because he is generously appreciative of the financial difficulties of his patients. He is no longer a saddle bag doctor dispensing empiricisms. He no longer drives a characteristic gig. His high hat and his gold headed cane are no longer symbolic. He has been well educated in the medicine of his period. His preceptorial training in the use of his powers of observation, in deduction, and in the high development of his own senses, often more than five of them, has yielded to the deeper searching into the mysteries of bacteriology and of internal secretions. He has learned the value of mechanical helps. Unless he has been practicing longer than fifty years he is not an old doctor at all. Within fifty years he has become a modern doctor because modern medicine is all measured within this last half century. The metamorphosis of the old family doctor has been so gradual that he has passed on to this new doctor without his knowing it the age old interest in the poor and afflicted. Although the new doctor raised his right hand and promised to keep sacredly the Hippocratic oath, he only subconsciously knows the text of his affirmation. The spirit of Hippocrates, of Luke the beloved physician, of Harvey, of Jenner, of Lister, of Doctor Weellum McClure, of Osler and of Welch, has become the motivation of the Dafoes and thousands like him who never see their names in print.

The self imposed two thousand year old Hippocratic code has become the very fibre of his impulse to carry on in high fidelity his consecration to the service of the sick. His cultural and technical training covered almost thirty years of his life. At twenty-seven he received his diploma and thereafter served one or two years as an interne before starting to exercise his licensed right to practice medicine.

In the mad nineteen-twenties, the fashionable specialties lured many young doctors into those lucrative fields. In the depressive cycle of the nineteen-thirties, the family doctor has been much less embarrassed than the limited specialist whose practice in many instances disappeared because patients could no longer pay his fees. In this period the family doctor has complained very little, and cared for his patients regardless of fee, in many cases living upon barter even in large cities. He and his people had shared hard times before and would do so again. In some regions he refused government aid while in other regions he now regrets that he accepted government employment at low or never paid fees. In large cities his position is more difficult than in small towns or rural regions. The city hospitals are crowded, not only with the normally indigent but also with people who formerly were able to pay for medical care. The doctor works in the hospitals and clinics and

often meets his former patients there. The doctor is the only person in the city hospital who works without pay. Because he has always done so is not a good reason for continuing to do so.

He works in the hospital for the pay of experience, for the pay of prestige, for the pay of promotion to places of prominence where he receives the pay of larger responsibilities. He works to learn more about medicine in order to be qualified to learn more about medicine. He is retired for age at sixty-five while he is still a student and he cannot be made to regret it. The doctor is the servant of the sick and when he serves the really poor he considers it a priestly privilege. People who are unable or unwilling to pay for medical care crowd free dispensaries to the doors. They are mostly uninterested in the personality of any doctor—their chief interest is in getting something for nothing and they submit to mass medicine because they must. One hundred and twenty patients in a medical clinic being served by four doctors in two hours means an average of four minutes for each interview and is very poor medicine. During the same time the same waiting space holds as many other people waiting for the nose and throat clinic which is crowded beyond comfortable limits. The clinic nurses and clerks work all day at high speed and are paid for their work. Doctors come and go for two hours or longer periods giving their services absolutely free. Some of them are specialists but most of them are general practitioners. Although many people are in need of medical service at low fees, and the cost to the city is small because the doctor is unpaid, many doctors would be glad to treat these people in their offices for nominal charges and give them better care than the hospital because it would be individualized and unhurried. It would seem to be only fair that doctors as well as other people who work in tax supported hospitals, or other government institutions, should be paid for their work. At present there is no money to pay them. Doctors of various kinds who now work for the government receive salaries so small that in ordinary times their positions are unattractive. The government being unable to balance its budget, the prospect of seeing the doctor paid by the State is remote. The family doctor is aware that his status is changing and he desires to be one of the controlling factors in any new program. He justly resents the imposition upon him of any compulsory program by non-medical organizations. He believes that the American Bar would resent the imposition upon it of a program to regulate the practice of the family lawyer in much the same spirit.

The family doctor realizes the value of discussion of every phase of medical service and is greatly interested in various plans now being put into experimental operation by county medical societies. He believes that the care of the sick is a medico-sociologic problem and that all doctors should be organized to attempt a solution. He



believes that the old types of individualism will be limited to unhurried study in limited fields involving investigative science.

He disbelieves in the practicability of extending the fields of state medicine, because the burdens of the State already excessively overload the taxpayer. He sees state education in difficulty because it has grown too expensive for the community pocket. He sees thousands of teachers unpaid and out of work,—he sees teacher training schools closed, he sees few new teachers appointed, he draws an analogy between state education and state medicine and believes that a similarly planned system of state operated medical service would be an insufferable load no matter how honestly it might be attempted. He believes that in any such system expensive bureaucracy would be so inevitable that the doctor would become a poorly paid servant, that his ambition to pursue scientific study would be dulled, and that general medical service would sink to degrading levels. Such a system cannot escape political manipulation. The legislature which votes the money for it will tie it up to political officers. It is claimed that public opinion will guide these officers toward wisdom and honesty, but we cannot escape historical precedents which have always shown undue official absorption of the taxpayers' contribution to any public operation. State medicine as we now have it is not attractive to the family doctor; he sees a few brilliant career men who have fought their way to the top, but he believes that most of the rank and file of the lower grades have been lured into the service by the prospect of soup bone security. The family doctor thinks of state medicine only in terms of relief from financial worries. When the doctor is making a living he forgets it and turns again to the absorbing interest of giving the best that is in him to his patient, he feels that the government doctors' viewpoint is colored by a salary and that from their safe vantage point they have lost an understanding of intimate medical problems.

The family doctor is acutely aware that the application of medicine lags behind the science of medicine, he laments the uneven distribution of medical service even as he is saddened by the tales of inadequate housing and clothing and feeding of some people. The family doctor is in no sense a parasite living well upon the community; he is always willing to share common privation. The profit motive is not large in the doctor's life but the incentive to make a living is ever present. Paid research workers represent a very small portion of the medical profession, and the fact that they have not been demoralized by their salaries, often pitifully small, is not an impressive argument for subsidizing the whole medical profession.

Too many doctors, preventive medicine, and declining mortality and morbidity, as shown by current statistics, cannot be denied as economic factors. Few doctors have acquired wealth from the practice of medicine. Thirty per cent of them are said to be failing to make their expenses. In the light of such a statement the value of the doctor's contribution to the health of the nation is amazing.

The old family doctor of blessed memory is leaving the scene but his successors are growing in effectiveness and in the interest of the health of the nation deserve the unqualified support of all Americans.

I believe that our people would be responsive to an American Health Program if the physicians of the country could be inspired to write it.

I believe that it should demand the consolidation of all National health bureaus into a National Department of Health headed by a cabinet officer.

I believe that it should strongly preserve the quality of medical care—competently distributed.

I believe that the units of health administration should be the States and their political subdivisions where local health needs are known.

AND I believe that the general practitioner should be supported in his relationship to the American family.

## ABSTRACTS

### COMBINED INSULIN TREATMENT EFFECTIVE

Added confirmation of the value of supplementing protamine zinc insulin with regular insulin in cases in which the former left a deficiency is contained in a report by Herman O. Mosenthal, M.D., New York, and Morton F. Mark, M.D., Staten Island, N.Y., in *The Journal of the American Medical Association* for July 1.

Prior to the introduction of protamine zinc insulin, diabetic patients were usually required to take the regular insulin before each meal. The new insulin in general was taken only once a day. However, it frequently left a deficiency for one or more meals, which now is being corrected by supplementing the new insulin with regular insulin at the time or times when the former is insufficient to prevent sugar from appearing in the urine.

In their study, Drs. Mosenthal and Mark report that of a total number of 114 cases treated with protamine

zinc insulin alone or supplemented by regular insulin for six months or longer they obtained good results in 101 cases.

### QUININE RELIEVES MUSCULAR AILMENT

Quinine proved effective in relieving deforming muscular dystonia (muscular contraction resulting in deformities) in three patients, George B. Hassin, M.D., Chicago, reports in *The Journal of the American Medical Association* for July 1.

The affliction is characterized by excessive, involuntary, uncontrollable movements or spasms producing distortion, especially of the spine and hip. One of the author's patients, however, complained of spasms only of the neck. Large doses of quinine were used.

## MAJOR TASKS FOR THE MEDICAL PROFESSION\*

E. M. VAN BUSKIRK, M.D.

Fort Wayne

At this time, I wish to express my appreciation for this honor which you have conferred upon me. Being aware of the responsibilities and work connected with the office, I have tried to fulfill the aims and wishes of the members to the best of my ability.

Until the beginning of this century, and perhaps a little later, the chief activities of our national, state, and local societies were scientific and social. Now the situation has changed. We are in a state of unrest politically, economically, and socially. Under these conditions it would be unwise for any person to offer a group like this society a solution of the problems to be worked out, or outline any course of procedure which we may follow. It would be better for me to discuss some of the major tasks which our State Association has under consideration at the present time.

From the time of the very birth of true scientific medicine until quite recently, doctors were able to control all of their activities; they solved their own problems to the satisfaction of their clients and the various income groups in a very admirable manner. Now governmental and economic-minded forces are trying to supervise the medical profession more and more. They assume that public health supervision should be in charge of politically socialistic-minded individuals, and not in charge of the specially trained physicians to whom such supervision rightfully belongs.

Over a short period of years, public welfare groups, lay groups, and public health workers have taken up what they call health education. First they assumed the role of assistants to the medical profession, but recently their status has changed. This particular field of workers has grown by leaps and bounds, with some schools turning out so-called trained individuals who immediately assume positions in which they disseminate knowledge quite independent of the best judgment of the medical scientists. These people read of researches in medical sciences and form their own quick judgment regarding such work, often accepting as final something which has not been verified by extensive clinical application.

Social workers and politicians have had no medical training of any kind, and they do no scientific research but, nevertheless, they are convinced that their medical ideas are sound and that their mission in life is to pass their ideas on to the public. They believe that they are better qualified to administer and direct the medical needs of the nation than any other individuals, because they

think they have a better understanding of the physical and mental reactions of the human being. Their desire is that physicians should be mere technicians, working through them in ever larger and more beautiful buildings. In this manner, they think medical care would give greater efficiency and happiness. To this end they have no proof—except that they are satisfied in being the chief agents in demonstrating and directing health and welfare ideas!

Editors and magazine writers have added their bit to the attack on the medical profession. They have accused doctors of being obstructionists, because they think that we are denying people medical care, even though we have served all income groups well. Very seldom has there been a word of credit for the vast amount of charity work that has been done. Popular magazines have also been guilty of publishing articles which advocate some untried drug, praising it as the last word in the treatment of certain diseases. Quite often the drug is later proved to be dangerous. The public reads those articles and then demands treatment which is not on the market, then the medical profession is accused of being too conservative because it does not use a drug which, perhaps, cannot be obtained, or which has not been passed upon by trained clinicians.

Dr. Ray Lyman Wilbur well said: "The practice of medicine can only be fully understood by those who have lived it"; and yet, unless the profession bestirs itself, great changes in medicine will take place through the instigation and pressure from outsiders.

This very fact has taken the form of the National Health Bill which, without a doubt, will be brought up at the next session of Congress. It is believed that a medical program of some kind will be adopted, and it behooves the medical profession to be cognizant of the fact, and it is up to us to determine what sort of a program can be adopted in order to improve the health of the American people if such is necessary.

The present health bill provides for the expenditure of millions of dollars for the first fiscal year and increasing amounts for the second and third years, with unlimited appropriations for the following years. The Federal appropriation "is to match State outlays for maternal and child care, construction of new hospitals, extension of public health services and medical treatment of the economically handicapped." These expenditures are to be made whether there is any definite need or not, and the plan proposes to place the dispensing of these funds allotted to the state health officers, subject only to the approval of the Fed-

\* President's address, presented before the annual session of the Indiana State Medical Association at the Fort Wayne meeting, October 11, 1939.



eral agency to which the task is assigned. Appropriations for hospitals and their maintenance are to be made without determination of the exact needs that prevail. Huge sums are to be allotted to the states for medical care without specifying their use for providing such service, except to demand the approval of the Social Security Board.

This plan sounds euphoric, for the simple reason that the State grants are to be made at the discretion of various Federal bureaus and departments, such as the Surgeon General now in the Treasury Department, or the Children's Bureau with the approval of the Secretary of Labor. The amount granted depends chiefly on the political favor that the state happens to enjoy at that particular time. It is imperative that each state decide whether it is to have compulsory insurance or medicine supported by taxation in order to be a recipient of the grants by the Federal government. This resolves itself into one and only one thing, and that is a political bribe for socialized medicine in each and every one of the forty-eight states. This method also places a whip hand over the state legislators inasmuch as their state may get a small appropriation or none at all if they openly oppose certain measures.

As usual, there are states in the Union which have been waiting for something like the National Health Bill, and already, in seven state legislatures, bills have been introduced. The bill introduced in the New York legislature has aroused the greatest amount of interest because it advocates free medical care for all people. In addition, it provides for subsidizing new men for the medical profession if the physicians refuse to accept their arrangement. In return, these men are to serve three years for their training.

The National Health Bill impresses one with its vagueness, and the indiscriminate expenditure of huge sums of money by certain federal office holders, and the manner of its distribution among the states. Under this sort of a plan, the patient-physician relationship would be entirely eliminated, and the success of the individual physician would depend upon his political connections instead of his real ability. The status of the physician is not guaranteed in the Health Bill, and there is no doubt that the physician would become an employee of the Federal government and he would be supplied with a very definite set of rules and regulations. In this respect the "golden thread of human understanding and of close personal relations between doctor and patient will be left out of the new social fabric," which is being woven right under our eyes. The time-honored confidence of the patient in his physician is denied, and every effort has been made, through malicious propaganda, to end any respect that the patient or the public has for his physician. We all know that by serving each patient well we perform a greater service to our patients and to our country than by serving some political bureau chief.

The physicians of the nation have been accused of having failed in the private field of medicine; it is said that medical care is inadequate, and that, therefore, the entire system of medical practice is all wrong. However, when we examine the records of foreign countries which have established some system of medicine, we find that, in comparison, the records of the American physicians surpass those of any other country. We all know that the mortality rate of heart disease, cancer, and diabetes has been on the increase, and in comparing the records of the United States, England, and Germany, we find that in America we have the lowest percentage of increase. In regard to tuberculosis and diphtheria, the percentage of mortality decrease is greater in the United States than in either England or Germany. In fact, Germany has shown an increase in mortality rate for diphtheria. We all know that poor housing, poor sanitation, and inadequate food are conducive to an increase in tuberculosis, yet there has been a decrease in the mortality in the United States which certainly indicates that the poor have been well cared for in our country. So, therefore, if their system of medical care which is comparable to the proposed National Health Bill is such a remarkable thing, their records of success should reflect results far superior to those shown in the United States—but they do not.

In regard to the inadequacy of medical care in the United States, Dr. Abell said: "If it be true that one-third of the population is poorly clothed, poorly housed, poorly fed, and without proper medical care, the problem presented thereby is even more social and economic than medical. That such conditions exist is an indictment of society, but certainly not of the medical profession." These facts we all know to be true for when the economic status of the population is improved, medical care will be adequate.

In general, the National Health Bill shows every indication of being poorly organized "with three Federal departments as its head, and for each plan there is an Advisory Committee, so that the bill will create approximately three hundred different boards, largely composed of laymen." This clearly indicates how unwieldy the administration would be, along with medical guidance directed by laymen who certainly are not qualified.

Senator Robert A. Taft said, "There is hardly a field in which there has been more sensational and continuous improvement than that of medicine in the United States. That improvement has been due to the brilliant, unselfish and industrious work of thousands of physicians. It is not their fault that incomes are unequally distributed, and that efforts by local government to cover the entire field of health have been restricted by lack of resources. But now I hope they will take an active interest in seeing that the unequalled medical service received by most Americans is extended to the entire population. Their own interest and

participation in the program will make it certain that it is not dominated by half-baked theorists, or by those who believe in a totalitarian state, directing the lives and caring for the health of all its citizens through the mechanical and usually careless action of government bureaus."

There is no doubt that some political, socialistic-minded individuals are going to force some form of socialized medicine, and it is up to the medical profession to assume the responsibility and initiate some form of medical care; and in this manner we will have some control of our destiny. This plan may be unpleasant to most of us, but it is forced upon us, and it is up to us to do what we can to protect the interest and welfare of our patients in a better manner than would be the case if medical practice is controlled by a socialistic and politically minded group. However, instead of accepting such an organization as the National Health Bill proposes, it would be better to give impetus to the recommendations made by the House of Delegates of the American Medical Association which "approved expansion of public health service where need could be shown, approved medical care to the indigent and to the medically indigent where need could be shown, and approved even expansion of hospital construction, providing the need could be demonstrated, recommending, however, utilization of existing facilities to the utmost before a new building program was authorized, and approved the principle of assistance to the worker for temporary disability resulting from illness."

The American Medical Association and the physicians in general throughout the nation are working to the best of their ability to adapt themselves to the changing conditions, and they are trying to accept these circumstances in a logical way. It is the general consensus that if the practice of medicine is to be altered, it should be done in a proper manner and it should not be necessary to accept the ideas of a small group of people without knowing what the end will be. As Christian said, "We can waste a great deal of time talking to the public about things for which no preventative measure is known." We ourselves must be guided by this thought, and we must be sure that we are right before we attempt any new plan.

Our own State Association, with its various committees, has been guided very largely by this truth. The "Indiana Plan" itself is an example. The members of the Delaware-Blackford County Medical Society cannot be complimented too highly for their achievements in medical organization, and their work could well be emulated in any county or state organization.

Our state program, through county societies and state committees, has been well carried out and deserves recognition. The Committee on Public Policy and Legislation did a tremendous amount of work during the last General Assembly. They outlined "the best health program ever enacted by any state legislature" but failed, through no

fault of their own, but by the Governor's refusal to sign three important measures following the adjournment of the Eighty-first General Assembly. However, they check-mated any attempt to popularize a program for socialized medicine. In addition, they recommended the following bills which were passed:

1. Pre-marital test for syphilis.
2. Revised pure food and drug act.
3. Bills providing for the purchase of pneumonia and typhoid serums, and diphtheria and smallpox vaccines for the indigent.

The Committee on Medical Education and Hospitals worked out a very interesting program for the ensuing year. In Vanderburgh County the society will sponsor monthly post-graduate conferences with a different topic each month. At Marion a three-day regional conference was held beginning June 13, and it was devoted to obstetrics. Should such meetings prove successful, similar programs will be carried out in other sections of the state.

The State Board of Health cooperated with the State Medical Association in every possible manner and promises that it will continue to do so as long as the present administration is in charge. It wishes to take this opportunity to thank the State Medical Association for the very splendid cooperation which has been given to the State Board of Health and the local health units during the past few years. It will be impossible to review all of the contacts between these two important organizations, so we shall content ourselves with mentioning the more important ones.

The syphilis committee appointed by the State Medical Association has given invaluable aid in organizing the physicians of the state in the fight against this disease.

The Bureau of Public Health Nursing calls your attention to the fact that the public health nurses all over the state are responsible to the local medical advisory committee and that they receive their standing instructions from the local medical society. This has been a great service in correcting the difficulties which have sometimes arisen about the public health nurses. Many of these nurses must work without close supervision and it is likely that sometimes mistakes are made.

The standards for maternity homes and maternity hospitals as arranged by the Liaison Committee of the State Medical Association and approved by the Executive Committee of the same association.

Medical education programs continue to be arranged only with the consent of the local medical societies and the active participation of the local physicians is encouraged.

In these and other ways, the Board of Health and the State Medical Association continue to cooperate to the advantage of each and particularly to the advantage of the public in all matters pertaining to health.



The State Board of Medical Registration and Examination is very much handicapped by lack of funds. Both the Committee on Public Policy and Legislation and the Committee to Study Cultists and Irregular Practitioners recommend legislation similar to that introduced in the last general assembly and which failed to pass, so we should do all in our power to give this board needed support.

At the University, a new department of Medical Economics and Post Graduate Education has been established. This department will be a course in Medical Economics and Ethics which is intended to give the under-graduate student a better understanding of conditions which he will have to meet in the practice of medicine. New courses are being planned in some of the specialties, and changes are being made so as to correlate some of the work in a more satisfactory manner.

The Indiana State Medical Association, ever since the depression, is justly proud of its achievements and its accomplishments. Many county medical societies have worked out successful and satisfactory plans with their local county and township officials. A great many of our societies are not idle, and so it is with many individual practitioners. We must all work as one association, and as one individual, or some one else will devise plans and administer them, and we will be regarded simply as technicians.

It is up to us to keep in mind the facts of the National Health Bill and to do all in our power to see that such a plan is not instituted, and if any sort of a health program is established, that it be planned and controlled by the physicians, and not directed by politicians.

347 WEST BERRY STREET.

## DIAGNOSIS AND TREATMENT OF PERNICIOUS ANEMIA\*

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An adequate diagnosis of pernicious anemia is based on the discovery of a macrocytic, oval or oblong red blood cell anemia, a wide dispersion in the sizes of the red blood cells, from very small to very large, with a high color index, leukopenia, thrombocytopenia, bilirubinemia and achlorhydria in an individual of a definite constitutional type. In addition, many patients show glossitis and sensory disturbances suggesting lesions of the posterior and lateral columns of the spinal cord.

Some of these features are of differential diagnostic importance. Thus macrocytic anemias may appear in cirrhoses of the liver, sprue, carcinoma of the head of the pancreas, intestinal anastomosis, intestinal stricture, myxedema, some cases of fish tapeworm infestation, some deficiency diseases, the later stages of pregnancy and the dilution stage after acute hemorrhage. Pernicious anemia is distinguished from these in that the macrocytes are oval or oblong instead of round.

Macrocytosis is determined by the measurement of the diameters of the red blood cells, and by the calculation of their average volume from data obtained from cell counts and hematocrit volume. As long as the cells remain large the patient is still in the stage of relapse and intensive treatment is needed.

In the other macrocytic anemias (the round cell types) the shift in size is toward the large cells,

differing from pernicious anemia where microcytes (probably fragments from the amoeboid macrocytes) are present.

The high color index is a differential point from the iron deficiency anemias. In anemias in which normal sized red blood cells have absorbed fluid and become macrocytes through swelling, the mean corpuscular hemoglobin concentration is low, compared to the nearly normal concentration in pernicious anemia.

The presence of free hydrochloric acid in the gastric contents after the injection of histamin (0.25-0.5 mg) is quite definite evidence that the disease is not pernicious anemia.

The bilirubinemia, associated with slight jaundice of the sclera, and a slight yellowish tint in the skin, may be secondary to increased red blood cell destruction, or to decomposition of non-used hemoglobin precursor. In a group of 289 patients with pernicious anemia at different red blood cell levels, 48.8% had a blood bilirubin content over 1.0 milligram per 100 cc., 2.1 per cent having over 4.0 milligrams per cent. The usual range during relapse is from 1.0 to 2.0 milligrams per cent (normal 0.2 to 0.7 milligram per 100 cc).\*

The present view as to the causation of the anemia is that the stomach fails to secrete sufficient enzyme-like hemopoietin to manufacture the precursor of "liver extract" from the food. The de-

\* Presented before the Section on Medicine of the Indiana State Medical Association at the Fort Wayne convention, October 11, 1939.

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\* The data on pernicious anemia in this paper were obtained from a study of about 1,000 patients at the Simpson Memorial Institute. Part of the statistical material was correlated from our records by Dr. Lloyd R. Gates.

ficiency of "liver extract" is reflected in the failure of many of the red blood cells to mature at the proper rate beyond the megaloblast stage. Delay at this stage allows the cells to increase in size, so that when they mature ultimately, they are larger than normal (macrocytes). The cause of the oval form is not known.

From the clinical study of the patient much information can be obtained.

The first symptom is "ease of fatigue" and general weakness. It was an outstanding symptom in 85.1% of our patients. In 580 of these patients, 33 entered the hospital after noting symptoms which turned out to be pernicious anemia for less than 6 months, 192 noted it for a year, 138 for 2 years, while the others had experienced it from 3 to more than 20 years. In the 20 year group were 2 men and 4 women. Curiously enough, in a group of 580 non-pernicious anemia patients of a similar age composition, the duration of the preceding symptoms was practically the same.

Other symptoms, in the order of their frequency (580 cases) were numbness, 81.2%; tingling (fingers, toes), 74.3%; shortness of breath, 64.3%; symptoms referable to the stomach, 62.6%; constipation, 54.3%; palpitation, 49.3%; edema, 43.9%; loss of appetite, 43.9%; difficulty in walking, 43.6%; symptoms referable to the bladder, 35.0%; dizziness, 27.9%; memory poor, 26.8%; diarrhea, 26.5%; pain, 20.3%; stiffness, 12.2%.

Of these symptoms, general weakness, numbness and tingling, diarrhea, difficulty in walking, edema, loss of appetite, poor memory, palpitation, shortness of breath, and symptoms referable to the stomach, occurred more frequently than in a similar age group of patients having other diseases. In the latter group pain occurred more frequently (56.7%) than in patients with pernicious anemia.

Of the signs, pallor, of a peculiar yellowish tinge, is usually present in pernicious anemia during relapse. Tenderness over the gall bladder region occurs in about one-eighth of the patients. The heart is seldom greatly enlarged, but hemic murmurs are usually present when the red blood cell count is low, disappearing when the count returns to normal. Twice as many patients with pernicious anemia show hypotension (systolic) than patients in a similar age group and seven times as many show a low diastolic pressure. Lymph nodes are palpably enlarged in 11.4% of the patients, compared to 14.5% in a control group. The spleen is rarely palpable, although it may be slightly larger than normal. In our series 49.5% had had all their teeth removed, 36.0% had bad teeth and 14.5% had good teeth. These percentages did not differ grossly from those of non-pernicious anemia patients, and this casts some doubt on the relation of focal infection in the teeth and pernicious anemia. The same was true of infected tonsils in these patients, there being just as many good, bad and removed tonsils in one group as in the other. Glossitis is present in 73.3% of the patients with

pernicious anemia, whereas it is encountered in only 7.8% of other patients. Glossitis is more common in women than in men. Atrophy of the papillae is present in 69.0% of the pernicious anemia patients whereas it is encountered in only 2.7% of other patients.

Neurological symptoms are usually a combination of lesions of the posterior and lateral columns of the cord. Posterior column manifestations are numbness, tingling, coldness, band sensations, sharp shooting pain, loss of position sense, decreased or lost vibratory sense, astereognosis, loss of finer coordination of the fingers, ataxia in locomotion, Rombergism, cutaneous hyperesthesia, anesthesia to touch, temperature or pain, bladder disturbance, muscular atrophy, loss or decrease in biceps, triceps, knee jerk or ankle jerk reflexes. Lateral column manifestations are stiffness, spastic paralysis of the legs, increased knee, ankle, biceps and triceps jerks, ankle clonus and positive Babinski sign. Cerebral manifestations are mild depression, violent maniacal outbursts, indifference or apathy, irritability, delusions, hallucinations, memory disturbances and coma. Mild symptoms, as numbness, appeared in 90 per cent of the patients, but very severe symptoms were present in only 6 per cent.

Most of the patients develop the symptoms of the disease between the ages of 35 and 65 years, the peak of the distribution curve being at 55 years. The disease is rarely encountered in the first two decades of life, although there is a disease of infants, Fanconi's disease, in which the blood has many features of pernicious anemia and in which recovery follows the use of liver extract in selected cases.

The disease appears equally frequently in both sexes.

Patients with pernicious anemia have a certain body build which is rather characteristic. They have a tendency to gray hair, and the change begins usually before the age of 30 years. Other members of the family note early graying of their hair. Our statistics showed a higher percentage of light hair and light colored eyes in the pernicious anemia patients and their relatives than in a control group of the same age and region. The ear measurements prove of interest. Patients with pernicious anemia tend to have long ears. The average length of the ears in our male group was about 7.0 cm and for the women about 6.5 cm. This compared with an average of 6.7 cm for non-pernicious anemia men and 6.1 for the non-pernicious anemia women.

There are certain other physical characteristics, more or less marked in different patients, such as a square, prominent jaw and certain bodily proportions.

#### TREATMENT

Treatment of the anemia consists in giving the patient an adequate amount of liver, liver extract or desiccated stomach. When the red blood cell count is low it is advisable to give larger doses



than when the count is normal. The dose of whole liver is about one-half pound 6 or 7 days a week. The liver may be cooked in any palatable way. The ideal dose of liver extract or stomach preparations is 1 U.S.P. unit a day or the corresponding number of units at longer intervals, for example 7 units of liver extract once a week. When the red blood cell count is lower than 3 million per cu. mm., it is wisest to give much larger doses, from 2 to 5 units a day. It must be remembered that a unit for oral liver extract is different from that for an injectable preparation.

An important point to explain to the patient is the necessity for keeping up the treatment. The maintenance dose, when the red blood cell count has returned to normal, is seldom less than at the rate of 1 unit a day. Individual patients may get along on less, but it is necessary to keep in mind spontaneously sustained remissions, which appear to be temporarily independent of the liver intake, but which eventually terminate in relapse if the medication is inadequate. A spontaneous or sustained remission may last for several months, occasionally longer than a year. Relapse, with inadequate medication, however, may appear in from 2 to 6 weeks. The maintenance dose is different for every patient, and must be determined by frequent red blood cell counts (every month in the beginning, later every 3 months). The first hematological indication of a beginning relapse is an increase in the color index. A sore tongue and development or progression of neurological symptoms are indications for resuming more intensive dosage.

While oral liver extract or ventriculin must be given from 5 to 7 times a week, intramuscular liver extract may be given at one or two week intervals. A few patients have been able to go for 3 or 4 week intervals on intramuscular treatment, but most patients require shorter intervals. The only route which we have found in which injections can be given safely at monthly intervals is by the intravenous method. However 10% of the patients are sensitive and have reactions by this method. We have been following 138 patients who have been receiving 12 intravenous injections a year for from 1 to 8 years, and they appear in perfect health. Only certain preparations can be given intravenously. As a rule the method of choice is the intramuscular route. One to 5 cc. depending on the medication, are injected deep into the gluteal, thigh or arm muscles. A number 22 needle, one and one-half inches long, is serviceable. It is wise to vary the site of injection to avoid irritation. Reactions vary from local pain to generalized flushing and headaches.

When the neurological symptoms are very marked, a combination of several sources of anti-anemic material may be advisable. Thus, besides 2 or more units of liver extract intramuscularly per day, it may be of advantage to give 10 to 40 grams of ventriculin by mouth. This is given in a suspension in water or other cold liquid at any time of the day.

Many patients taking medication by mouth require larger doses as the years progress until finally it is no longer economical to use this method of treatment. A few patients are allergic to liver, liver extract or ventriculin. In these patients it is necessary to try all of the preparations available. Liver extract may be given intramuscularly in very small doses, (0.1 cc.) and the amount increased gradually. Epinephrine 0.5 to 1.0 cc., may be given by injection at the same time, or atropine sulphate 0.5 milligram (1/120 grain).

Other preparations for the treatment of the anemia are available, consisting of liver and stomach combinations, liver and vitamin mixtures and yeast. These substances are effective when the proper dosage is used, quite often much higher than that recommended by the manufacturers. When the red blood cell count is very low or when infection is present and the patient is in poor condition, one or two blood transfusions of 500-600 cc. each should be given. Infection delays recovery and inhibits, to some degree, the action of liver extract. As a general rule if there is basophilia of the granules of the polymorphonuclear neutrophils, the dosage of medication should be markedly increased, to 3 to 5 units a day.

With progression of the neurological symptoms, bed sores may develop. Before ulceration, the reddened area may be coated with collodion solution. Eroded ulcers may be treated with dressings wet with a saturated solution of boric acid, merthiolate or acriflavin, or thymol iodide may be dusted on, or balsam of Peru in castor oil may be used. Exposure to the light of a carbon filament electric light for prolonged periods is useful. The circulation may be stimulated with alternate suction and pressure, using a funnel attached to a rubber bulb. The prognosis is good if the treatment is persistent.

Cystitis is a serious complication and should be treated without delay. The method of Crede may be used when there is improper emptying of the bladder. When the bladder is emptied at regular intervals, it sometimes develops the ability to empty itself. When infection is marked, irrigations every 2 to 4 hours through an indwelling catheter with 0.25 per cent acetic acid may be helpful. Among the drugs which have been found useful are ammonium mandelate, ammonium chloride, sulphanilamid, and methenamin.

Sore tongue usually disappears with adequate liver or ventriculin therapy. The local application of a 1% solution of silver nitrate is helpful.

Constipation may resist the ordinary drugs, and daily enemas may be necessary.

When there is incontinence of the stools, an effort should be made to cause emptying twice a day at a definite time with a small enema or a glycerine suppository. Occasionally a habit response may develop.

The numbness and tingling usually decrease or disappear with adequate anti-anemic therapy. Purposeful exercises of the hands and feet are important. Occupational therapy is valuable. Physical

therapy with heat, cold and massage gives subjective relief. This method is of value when there is much pain.

There may be a marked improvement or disappearance of the mental symptoms when the blood count returns to normal.

Pregnancy is to be avoided, especially if there is marked neurological involvement. However, pregnancy may develop to a normal termination without injury to the mother. It is wise to use a high dosage (2-3 units per day) of liver or ventriculin during the period.

As to accessory medication, dilute hydrochloric

acid, U.S.P. may be given in four cubic centimeter doses in a glass of water during the course of each meal to those patients who have marked gastrointestinal symptoms. Otherwise it is not essential. Iron (ferrous sulphate, 0.32 grams, 5 grains) 3 times a day may be prescribed if the color index becomes low. Arsenic has been displaced by liver and ventriculin.

From a study of over a thousand cases in our series, we believe that the prognosis is very good, and that neurological complications need not be feared if adequate amounts of liver or ventriculin are taken, enough to keep the red blood cell level around 5 million per cubic millimeter.

## THE NEWER CONCEPTS OF INTESTINAL INFECTION\*

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It has been said that those who propose new concepts in medicine often fail to realize that they have but climbed upon the shoulders of those who have preceded them. At the outset I wish to acknowledge a debt of gratitude to the many investigators who have laid the scientific groundwork for these studies and to the general practitioners whose empiric observations have often proved valuable to me in the light of subsequent experimental and laboratory investigations. It is my purpose, therefore, to develop the theme of this paper in a coordinated and logical manner, recalling to your minds many observations which you yourselves have made at one time or another. We shall consider, first, the basic mechanism underlying intestinal infections; second, its operation in primary enteric and extra-enteric disease and, third, its practical application in diagnosis and therapy.

My earliest recollection of this subject was when, as a boy, my family physician, in the wisdom born of experience, always administered castor oil at the onset of a systemic infection or contagious disease. Although not realized at the time, the logical basis for this mode of therapy was a mechanism which is of fundamental importance in the understanding of all intestinal infections. We have been accustomed to thinking of the intestine simply as a digestive and excretory organ. Ingested substances are digested and the undigested residue is subsequently excreted. This may be termed "the direct excretory mechanism" of the bowel. It is exceedingly doubtful whether ingested bacteria have any direct action upon the intact intestinal mucosa. Nor, with the possible exception of *B. tuberculosis*, can organisms pass through a healthy intestinal wall in the human. The toxins elaborated by certain bacteria, however, do pass through the wall quite readily and are

absorbed into the blood stream. The explanation apparently lies in a combination of local tissue immunity and a selective action by the cells of the mucosa. The process differs somewhat in the case of gases. Here the mucosa assumes a passive role, functioning as a semi-permeable membrane. For example, oxygen instilled in the bowel lumen diffuses into the blood and increases the oxygen tension of the plasma and peritoneal cavity. The reverse is also true, inhaled oxygen increasing the tension in the blood which, reaching the intestinal wall, causes a rise in the oxygen concentration within the intestinal canal. We have made practical use of this principle in the treatment of chronic ulcerative colitis, tuberculous peritonitis and toxemia associated with obstinate constipation.

Besides "the direct excretory mechanism" of the bowel there is a second, and from the standpoint of intestinal infection, a far more important mechanism, "the indirect hematogenous excretory mechanism." Bacteria, toxins and perhaps viruses elaborated anywhere in the body are brought to the intestinal wall in the circulating blood by the mesenteric, internal pudic and iliac vessels. Here the noxious substances are confronted by a vast lymphatic barrier which forms one of the most important and extensive reticulo-endothelial networks in the body. By means of intestinal transparencies we have been able to demonstrate that the blood vessels entering the outer coat of the intestine traverse the wall eventually to terminate about the innumerable lymph nodules which stud the entire intestinal tract. They are particularly prominent in the terminal ileum and colon, a point to be borne in mind when we state that these portions of the intestine are the sites of predilection for practically all infections associated with intestinal pathology. When an individual vessel reaches a solitary lymph nodule, it breaks up into a tuft of terminal arborizations which embrace the nodule in a delicate

\* Presented before the General Meeting of the Indiana State Medical Association at the Fort Wayne session, October 11, 1939.



THE RECIPROCAL EXCRETORY  
MECHANISM OF THE BODY  
(R.E.M.)

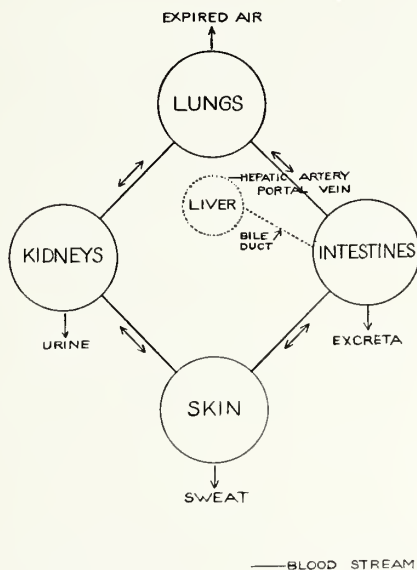
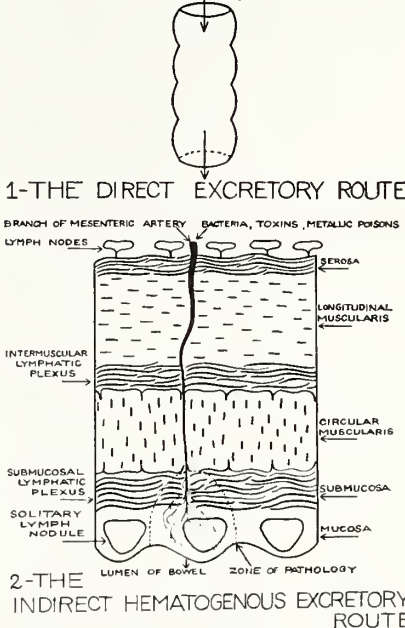


Illustration No. 1

THE DUAL EXCRETORY  
MECHANISM OF THE INTESTINES  
(D.E.M.)



filamentous network and enter its substance. This assures intimate contact of toxins with the lymphoid tissue which has an important protective function. Depending upon the nature and virulence of the toxic agent, certain changes take place. In favorable cases, lymphoid hypertrophy and hyperplasia occur with prompt subsidence when the infection is overcome. In children, this picture is invariably seen in most systemic infections. Some irritative phenomenon such as diarrhea may occur. It merely represents Nature's effort at eliminating the toxin which has filtered through the lymph nodules and mucosa into the lumen of the bowel. The inciting bacteria, toxin or virus may originate either *within* the lumen of the bowel or in some *distant extra-enteric focus*. This is an important practical point because it avoids the pitfall of limiting our studies in infectious diarrheas entirely to the intestinal tract. The first group of infectious diarrheas is represented by typhoid, salmonella infections and bacillary dysentery. The source of infection is *primarily enteric*. This simply means that the portal of entry is the intestinal tract, but does not necessarily indicate that the organisms multiply there. In typhoid, for example, our concept implies that in some manner the typhoid bacilli pass into the blood stream, multiply there and are eventually excreted through the bowel wall into the lumen. This idea coincides with the investigations of Goodpasture<sup>1</sup> who believes that the typhoid bacilli do not multiply to any extent in the intestine but enter the blood stream through a break

in the epithelium lining the digestive tract. Further evidence is supplied by the well recognized fact that blood cultures in typhoid are positive early in the disease, while fecal cultures do not become positive until late. In bacillary dysentery, the toxins elaborated by the dysentery organisms are absorbed into the blood stream. The bacteria themselves remain within the bowel and for this reason, contrary to the course of events in typhoid, fecal cultures are usually positive only during the first

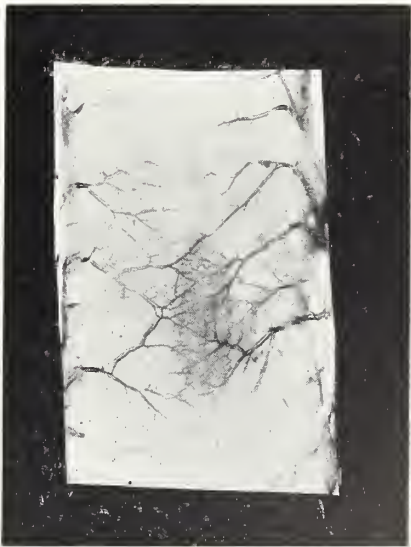


Illustration No. 2. Vascularization of a Peyer's patch. Note the blood vessels surrounding and penetrating the lymphoid tissue. (Photograph taken as transparency.)

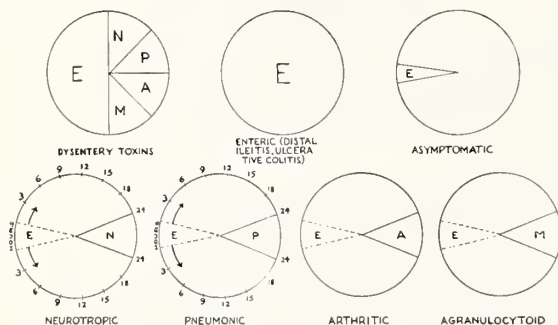
<sup>1</sup> Goodpasture, E. W.: Concerning the Pathogenesis of Typhoid Fever, *Am. J. Path.*, 13:175 (March) 1937.

## New Clinical Forms of Acute Bacillary Dysentery

In order to prevent the spread of *bacillary dysentery*  
We Must First Learn to Recognize the Disease

FORMS	ISOLATES
1 Appendicular, with acute distal ileitis	Appendicitis
2 Meningitic, with labial or nasal herpes	Meningitis
3 Pneumonic	Incipient lobar pneumonia
4 Agranulocytoid	Agranulocytoid blood picture
5 Constipated	Patients exhibit characteristic intestinal pathology
6 Afebrile	Are not healthy carriers
7 Asymptomatic	

### The Toxins of *B. Dysenteriae* and the Clinical Types of Bacillary Dysentery Produced by Them



E (enteric) and N (neurotropic) isolated; P (pneumonic), A (arthritic) and M (myelotropic) hypothetical. In the illustration an attempt is made to show how the pneumonic or other toxin predominates during the first 18 to 24 hours, after which the enteric toxin increases sufficiently to dominate the clinical picture.

Illustration No. 3

week and positive blood cultures are practically never obtained. The dysentery toxins are carried throughout the body and are excreted by action of the indirect hematogenous mechanism into the lumen of the bowel. In the case of other members of the primary enteric group of infections, two distinct effects are produced, namely: (1) focal, and (2) systemic. It appears strange and rather paradoxical, but nevertheless true, that in bacillary dysentery the systemic effects may completely overshadow the bowel symptomatology. This is particularly evident at the beginning of the disease and is exemplified by the pneumonic, meningitic and agranulocytoid forms of bacillary dysentery. It appears quite probable that the dysentery toxin has at least five distinct components—enteric, meningitic, arthritic, pneumonic and myelotropic, each having an affinity for the respective parts of the body. We shall apply this knowledge later to a consideration of the clinical aspects of the disease. The bowel lesions in bacillary dysentery are produced during the process of excretion of the enteric toxin from the blood stream into the lumen of the bowel. They can be reproduced experimentally in the rabbit by the intravenous injection of either the toxin or viable organism. There results a three stage progression of pathology which is characteristic of the disease and of great diagnostic value

in sigmoidoscopy.<sup>2</sup> They are: first, the stage of punctate follicular hyperplasia; second, the stage of punctate follicular necrosis and, third, the stage of discrete and confluent ulceration. Each takes approximately 24 hours to produce so that, to be most effective, serum antitoxin must be given within the first 48 hours.

We have described the operation of the hematogenous excretory mechanism in two typical diseases—typhoid and bacillary dysentery—where the infecting organism is primarily enteric. There remains a large and heterogeneous group in which the intestinal symptoms and signs are but focal manifestations of systemic disease. The chief sites of primary involvement are the nasopharynx, bronchi, lungs, heart valves, meninges and genitourinary tract. The epidemiology, if ascertainable, is that of the primary extra-enteric infection and intestinal symptoms promptly subside when the extra-enteric focus is removed or the infection subsides. The clinical implications of this concept extend far beyond merely interpreting intestinal symptomatology. It has revealed new possibilities in utilizing lesions of the intestinal tract for the diagnosis of primary extra-enteric disease. By correlating our necropsy studies with direct observation of the bowel during life in various diseases over a period of years we have been able to apply this knowledge for practical purposes by establishing accurate sigmoidoscopic criteria for the diagnosis of systemic disease. Thus it has been our privilege to describe the linear thromboses in periarteritis nodosa with the diagnosis of two cases during life; intestinal petechiae as an early sign in sub-acute bacterial endocarditis with the diagnosis of five cases within the past few months before blood cultures became positive or petechiae were visible elsewhere; rheumatic intestinal necrosis; embolic lesions in streptococci, staphylococci and pneumococci 7 septicemias; the embolic and purpuric eruptions in meningococci meningitis. To these we have added diagnostic signs in the leukemias, agranulocytosis, status lymphaticus, allergy and plumbism and these investigations are still in their infancy. Our purpose in calling these apparently irrelevant matters to your attention is to point out that only by the frequent and repeated use of the sigmoidoscope in systemic disease have many of our observations been made possible. Its value as a diagnostic clinical instrument in the future will rest largely on this basis.

Permit me at this point to recall to your minds the fact that the intestine is not an isolated organ, but one which is closely connected with certain other of the body systems. We have embodied this concept in what might be conveniently termed "the reciprocal excretory mechanism" of the body. Thus we may consider the skin, lungs, kidneys and intestines as being linked together by a common medium of exchange—the circulating blood. When

<sup>2</sup> Felsen, J.: Acute and Chronic Bacillary Dysentery, *Am. J. Path.* 12:395 (May) 1936.



one organ of this tetrad fails to function, the others endeavor to take over its duties. This is a delicately balanced mechanism and its working is familiar to all of you in uremia. Here, relatively high amounts of urea, sodium chloride and water are excreted by the lungs, skin and intestines. In extreme cases so-called "urea frost" may actually form on the skin. We have all of us utilized "the reciprocal excretory mechanism" in carrying out such therapeutic procedures as the use of pilocarpin and hot packs to induce sweating when the kidneys fail to function properly. In the case of bacterial toxins, "the reciprocal excretory mechanism" works in a similar manner as for the excretion of chemical poisons.

We have now considered three distinct excretory mechanisms of primary importance in intestinal infections, viz.: the direct and hematogenous mechanisms of the bowel and the coordinated reciprocal mechanism of the body as a whole. Let us now apply them in practical diagnosis and therapy.

Confronted with a case of infectious diarrhea, what routine procedure should be followed?

1. Isolate the patient at once.
2. Report the case to the Department of Health.
3. Take a careful epidemiological history in order to establish a possible "hand to mouth" or, more properly, "intestine to mouth" route of infection.
4. Examine the patient for evidence of systemic disease.
5. Culture the feces for known specific bacteria causing intestinal infection.
6. Sigmoidoscope the patient.
7. Institute treatment.

The diagnosis of bacillary dysentery deserves particular attention because it appears to be rapidly increasing all over the world.<sup>3</sup> Outbreaks are occurring with alarming frequency in our hospitals and contact infections are common. In some of our states it is not even a reportable disease, although the dysentery problem has already far exceeded that of typhoid for several years. Bacillary dysentery is an excellent example of disease adaptation. Formerly a disease of tropical regions, it is now widespread throughout the north temperate and even arctic zones. It has been our privilege to describe seven new clinical forms: (1) Appendicular, with acute distal ileitis<sup>4</sup>; (2) Meningitic<sup>5</sup>; (3) Pneumonic<sup>6</sup>; (4) Agranulocytoid<sup>7</sup>; (5) Con-

<sup>3</sup> Idem: The Problem of Bacillary Dysentery. A Five Year Survey, *Am. J. Trop. Dis.* **19**:333 (July) 1939.

<sup>4</sup> Idem: Appendicular Form of Bacillary Dysentery (with notes on mesenteric adenitis and inflammation of the distal portion of the ileum); *Am. J. Dis. Child.* **50**:661 (Sept.) 1935.

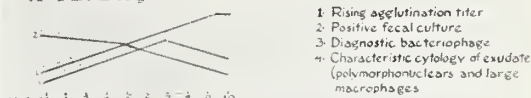
<sup>5</sup> Felsen, J., Rundlett, E. V., Sullivan, J. and Gorenberg, H.: Atypical Flexner Dysentery. A Preliminary Report of the Jersey City Epidemic, *J. A. M. A.* **103**:1055 (Oct. 6) 1934.

<sup>6</sup> Felsen, J.: The Pneumonic Type of Bacillary Dysentery, *N. Y. State J. Med.* **37**:253 (Feb. 1) 1937.

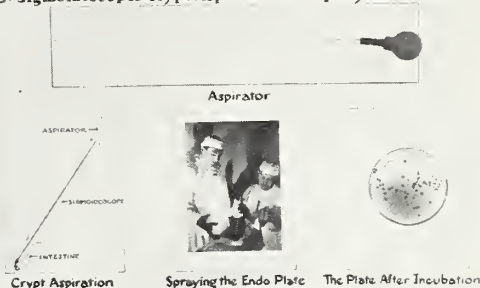
<sup>7</sup> Idem: Bacillary Dysentery. Acute Fulminating Type with Marked Toxic Neutropenia, *N. Y. State J. Med.* **35**:1037 (Oct. 15) 1935.

## The Laboratory Diagnosis of Acute Bacillary Dysentery

### A. The Diagnostic Tetrad



### B. Sigmoidoscopic Crypt Aspiration - Spray Culture:



### C. The Typical 3-Stage Pathology

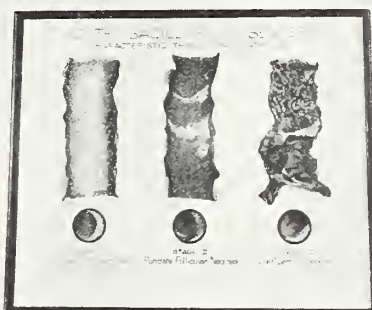


Illustration No. 4

stipated; (6) Asymptomatic, and (7) Afebrile. The names indicate their chief clinical characteristics. Their importance lies in the fact that, unless recognized, they constitute constant potential sources of contact infection. The constipated, asymptomatic and afebrile types are generally recognized only during epidemiologic surveys and are frequently encountered during outbreaks. The four chief diagnostic features of typical acute bacillary dysentery consist of (1) frequent watery or sanguinopurulent diarrheal movements accompanied by abdominal cramps and fever; (2) tender, spastic ileum and sigmoid which can be felt in the right and left lower abdominal quadrants respectively; (3) the characteristic three-stage progression of pathology already described as visualized through the sigmoidoscope (sometimes two or three stages may be seen simultaneously due to re-absorption of toxin); (4) the diagnostic laboratory tetrad of positive fecal culture, positive dysentery bacteriophage, a rising agglutination titer and purulent intestinal exudate containing macrophages.

The division of bacillary dysentery into mild and severe types on the basis of the particular dysentery strain involved, as often done in the past, is entirely unwarranted. The Sonne-Duval type of infection,

usually regarded as mild and affecting children, sometimes is as severe as the Shiga infection, often involves adults, and may cause sudden death. It is best to consider all cases of bacillary dysentery seriously, regardless of the causative bacterial strain.

The average case of moderate severity lasts from seven to ten days, following which there is a period of obstinate constipation. This represents Nature's attempt at splinting the bowel to favor repair of the ulcerated areas. The chief complications which we have encountered have been arthritis and

pyelitis. Perforation is comparatively infrequent. Most of the patients with the Flexner type of infection recover. In about 10 per cent of the cases, however, the disease enters the chronic phase with the development of chronic distal ileitis or chronic ulcerative colitis (10.7 per cent following the Jersey City epidemic of 1934).<sup>8</sup> The sequence of events is somewhat as follows. By the end of the third week the patient feels better, but is not entirely well. Some diarrhea and cramps persist, but insufficient, at first, to seriously inconvenience the patient. Then there occur periodic remissions and exacerbations of symptoms every month or so, each episode increasing in severity and duration until by the end of a year the patient is almost totally incapacitated. Bloody bowel movements usually terminate a long period of procrastination on the part of the patient and, unfortunately, only too frequently on the part of the physician. The clinical and sigmoidoscopic picture is now that of chronic ulcerative colitis or distal ileitis or both. By this time the original inciting organism, *B. dysenteriae*, has disappeared in most cases and secondary non-specific intramural infection has occurred through the ulcers originally produced by the initial specific dysentery organism. Intramural abscesses may form, indicated clinically by a septic type of temperature, and the secondary invaders are chiefly the enterococcus and *B. coli*. Even at this late stage we have been able to isolate the dysentery bacillus in 16 per cent of our cases. In an attempt to heal the chronic infection, considerable intramural fibrosis occurs, giving rise to mural thickening, pipe-like rigidity, luminal stenosis and loss of haustration which are the characteristic roentgenographic signs of the disease. In addition, sigmoidoscopy often reveals a pseudo-polypoid mucosa with geographic, linear and serpiginous areas of ulceration. The process is often segmental in distribution, "skip" areas occurring anywhere in the small or large intestine. The important point I wish to make is that we have seen the disabling diseases known as chronic distal ileitis and chronic ulcerative colitis develop from an initial acute bacillary dysentery in the same, previously healthy individuals.<sup>9</sup> The ideal therapy, therefore, clearly consists of the prevention of bacillary dysentery. It is my sincere belief that the eradication of acute bacillary dysentery by proper public health control measures will be followed by the disappearance of chronic ulcerative colitis and distal ileitis.

The treatment of the infectious diarrheas may be conveniently divided into three parts—preventive, supportive, and curative. Preventive therapy is concerned chiefly with those infections where the specific organism is known. In bacillary dysentery,



Illustration No. 5. Chronic ulcerative colitis due to bacillary dysentery in man of 23 years, one and one-half years previous. Arrow points to ileocecal valve. Note pseudopolypoid and ulceration of colon.

<sup>8</sup> Felsen, J. and Gorenberg, H.: Chronic Dysentery, Distal Ileitis and Ulcerative Colitis. A Follow-up of the Jersey City Epidemic of Bacillary Dysentery, *Am. J. Med. Sc.* **192**:553 (Oct.) 1936.

<sup>9</sup> Felsen, J.: The Relationship of Bacillary Dysentery to Distal Ileitis, Chronic Ulcerative Colitis and Non-specific Granuloma, *Ann. Int. Med.* **10**:645 (Nov.) 1936.

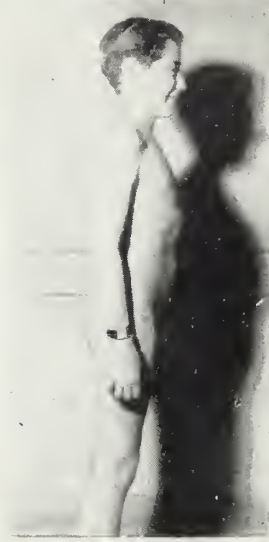




Exacerbation Phase



Edouard Manet's "Le Mendiant"



Remission Phase

Illustration No. 6. MENDICANT'S POSTURE IN CHRONIC ULCERATIVE COLITIS.

prophylaxis consists of isolation, active and passive immunization. Experimental and clinical studies indicate the effectiveness of vaccination with indigenous strains.<sup>10</sup> It is our hope that eventually dysentery strains will be combined with typhoid-paratyphoid, for all three are cousins under the skin and double infections are sometimes encountered. Acquired or natural immunity is frequently encountered among natives in endemic dysentery areas. Passive immunization is particularly valuable for babies and infants. The serum or whole unmodified blood of patients who have recovered from the disease is administered in amounts of 20 cc. twice daily for two days by the subcutaneous route. Commercial therapeutic serum is useful, but human serum is more type specific when used during outbreaks. The protection of children is very important in bacillary dysentery since they exhibit the highest mortality rate. In the non-specific infections or epidemic diarrhea of the newborn, the serum of either parent may be used subcutaneously. Since epidemic diarrhea of the newborn is contracted entirely in hospitals, all contacts, following the recognition of the first case, should be protected by serum whether still in the hospital or at home. The judicious use of castor oil at the onset of infectious diarrheas will abort the disease in many cases, particularly in the primary enteric group.<sup>11</sup>

Supportive therapy in all infectious diarrheas is based upon combatting toxemia, dehydration and acidosis. To these we may add hypovitaminosis. Oral feeding is not a grave problem since nutrition

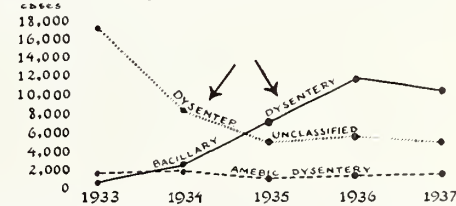
can be adequately maintained during the acute phase of approximately a week by the use of Ringer's solution or 5 per cent dextrose in normal saline by phlebotomy or hypodermoclysis. These may be supplemented by blood transfusion and

# When Cases of Dysentery, Enteritis and Diarrhea Are Studied the Incidence of Bacillary Dysentery Rises as the Unclassified Group Falls

Based on United States Public Service Reports for the United States 1933-37

	1933	1934	1935	1936	1937
Bacillary	625	2,197	7,241	11,555	10,428
Amebic	1,573	1,994	1,388	1,783	1,674
Unclassified	17,042	8,189	4,961	5,824	4,940
total	19,240	12,380	13,590	18,862	17,042

Note the steady rise in the number of cases of *bacillary dysentery*, the incidence in 1937 being sixteen times that in 1933. There is a coincident inverse relationship of *bacillary* to *unclassified dysentery*.



Graph showing relationship of incidence of *bacillary dysentery*, *amebic dysentery* and *dysentery unclassified*, 1933-1937.

As the reported cases of *bacillary dysentery* increase, the incidence of *unclassified dysentery* falls. Note the steady low incidence of *amebic dysentery*, unaffected by the fall in the *unclassified dysentery* curve.

Illustration No. 7

<sup>10</sup> Felsen, J. and Osofsky, A. G.: The Prophylactic Use of Serums and Vaccines in Acute Bacillary Dysentery (experimental studies), *J. Infect. Dis.* 63:298 (Nov.-Dec.) 1938.

<sup>11</sup> Felsen, J.: Infectious Diarrhea of the Newborn, *Arch. Ped.* 56:133 (March) 1939.

parenteral vitamin therapy in severe cases. Milk is often poorly tolerated. For infants, breast milk is better than cow's milk. In bacillary dysentery, we use the R-B-T (rice-banana-tea) diet supplemented by egg albumin water during the diarrheal phase. During the post-diarrheal phase of constipation, a full diet is gradually resumed and no catharsis is used as this represents a healing period. By the same token diarrheal movements rid the body of toxins and should be interfered with as little as possible. For symptomatic relief in severe cases deodorized tincture of opium in ten minim doses or papaverine hydrochloride grains I combined with extract of belladonna grains  $\frac{1}{4}$  will be found helpful. They should be given twenty minutes before oral feedings which should be limited to three or four daily since the ingestion of food initiates the gastro-colic reflex and incites bowel movements.

Curative therapy is limited to those infectious diarrheas in which a serum can be prepared to a specific causative organism. It is useful chiefly in bacillary dysentery and must be used *early and in adequate amounts* to be effective. Here again, besides commercial serum, we use human serum from recovered cases, when available. In epidemics there is generally no lack of human donors. In chronic ulcerative colitis and distal (regional) ileitis we use active immunization with D-C vaccine and antiviral supplemented by intestinal oxygenation<sup>12</sup> and a high caloric, high vitamin diet. If the food is well masticated, residue is of little concern. Low residue diets soon result in anorexia and, at best, are of very doubtful value. The organisms used in the D-C vaccine and antiviral are the autogenous dysentery strain (D) recovered by sigmoidoscopic crypt aspiration or determined inferentially by serum agglutination studies, and autogenous enterococcus and *B. coli*, the secondary invaders responsible for the chronic colitis (C). These organisms are supplemented by polyvalent stock strains of high antigenic potency. The results of therapy in all types of cases are indicated in the accompanying tables.

In spite of our presumed highly developed hygienic and sanitary standards, diarrheal disease stands tenth in the list of major causes of death in the United States<sup>13</sup> (17.2 per 100,000 of population). I am reasonably certain that these deaths represent less than 5 per cent of the total incidence of intestinal infections. In the course of a five year world wide survey covering the years 1933-1937, we found that for 18 of our states there were 56,102 cases of bacillary dysentery with a yearly average of 11,220 and an average mortality for 6 states of 15.7 per cent.<sup>14</sup> In general, two facts were

TABLE 1

## The Results of Treatment in Chronic Ulcerative Colitis

Degree	Cases	Ar-rested	Im-proved	Not Im-proved	Inadequate	Died	Follow-up
Severe	97	25	54	4	8	6	
Moderate	86	37	44	1	0	4	
Mild	20	15	3	2	0	0	
Totals	203	77	101	7	8	10	

Of 27 additional patients, not included in above table, who did not receive the treatment suggested, 12 showed no improvement, 1 had a post-operative recurrence, and 14 died of the severe form of the disease.

TABLE 2

## The Results of Treatment in Chronic Distal Ileitis

Degree	Cases	Ar-rested	Im-proved	Not Im-proved	Inadequate	Died	Follow-up
Severe	11	4	4*	1	0	2	
Moderate	5	2	3	0	0	0	
Totals	16	6	7	1	0	2	

\* 2 of these patients had post-operative recurrences before coming under our care.

9 additional patients, not included in the above table, had post-operative recurrences before we saw them. The treatment suggested was not taken.

TABLE 3

## The Results of Treatment in Combined Ileitis and Ulcerative Colitis

Degree	Cases	Arrested	Improved	Not Improved	Died
Severe	13	5	6	1	1
Moderate	4	4	0	0	0
Mild	1	1	0	0	0
Totals	18	10	6	1	1

5 additional patients, not included in the above table, had post-operative recurrences before we saw them. The treatment suggested was not taken.

TABLE 4—Combined Table

Degree	Cases	Ar-rested	Im-proved	Not Im-proved	Inadequate	Died	Follow-up
Severe	121	34	64	6	9	8	
Moderate	95	43	47	1	0	4	
Mild	21	16	3	2	0	0	
Totals	237	93	114	9	9	12	
Percent		39.2	48.1	3.8	3.8	5.1	

Note: Average follow-up period is 2.1 years.

5 patients with chronic distal ileitis have apparently undergone a complete resolution of the inflammatory process with restoration of normal lumen.

most apparent, viz.: first, that the reported incidence represented but a fraction of the actual incidence; second, that as more cases of infectious diarrhea are studied, the majority appear to be due to bacillary dysentery. This is essentially a public health problem in which we as clinicians are the first line of defense. We can solve it with the cooperation of competent public health officials. Intestinal infections are for the most part preventable; bacillary dysentery is completely so.

It has been my aim to repay your kindness in inviting me here by laying before you a rather broad, fundamental viewpoint of intestinal infections which may perhaps prove useful in attaining this objective.

As Cowper has so aptly stated, "Knowledge is proud that it has learned so much; Wisdom is humble that it knows no more."

120 EAST 39TH STREET.

<sup>12</sup> Idem: Intestinal Oxygenation in Idiopathic Ulcerative Colitis, *Arch. Int. Med.* 48:786 (Nov.) 1931.

<sup>13</sup> Horwood, M. P.: An Evaluation of the Factors Responsible for Public Health Progress in the United States, *Science* 89:519 (June 9) 1939.

<sup>14</sup> Felsen, J.: The Newer Concepts of Intestinal Infection. Clinical lecture at San Francisco Session, *J. A. M. A.* 112:46 (Jan. 7) 1939.



## FATIGUE, ITS CAUSE AND TREATMENT\*

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It seems unnecessary to formulate a definition of this subjective symptom. It does seem desirable, however, to remove from consideration a related condition which might masquerade as fatigue. In this, reference is made to the condition in which an individual throughout life manifests a disinclination to physical exertion and claims a sense of tire. The chief reason for eliminating such a state is that in spite of its presence the one so affected is capable of average activity without the development of evidence of exhaustion. While it constitutes a more or less complete digression, in explaining this phenomenon, we might recall the behavior of some of our lower animal classes in their manifestation of mind. If the unicellular animal, the paramecium, is fully fed and the condition of the medium in which it resides is optimal as to temperature, chemical reaction and light, it is said to be in biological equilibrium, and in such a state it remains completely inactive. The fact is recognized that all higher forms of animal life react at the lower levels of mind as well as the higher. May we not conclude that such an individual is reacting in this fashion rather than manifesting fatigue? In other words his reaction at the level of tropism is sufficiently prominent to over-shadow the promptings at the level of intelligence. On such grounds this limited class of mild though persistent symptoms will be excluded.

The subject of morbid fatigue as it relates to industry for several years has been given diligent study. Accident prevention and increased efficiency of the workers have been the goals sought, and from these studies an almost limitless array of possible contributing factors have been proved or presumed. Certain of these factors are observed to be inherent, as for instance incomplete recovery from previous exertion, lowered nutritional level, lack of appropriate training, handicapping physical defect and acute illness. Other fatigue factors are supplied by environmental conditions such as inadequate lighting, poor ventilation, improper temperature of surroundings, and unsuitable tools and equipment. Any attempt to list all of either the intrinsic or extrinsic factors would fall short of satisfying, but it is apparent that we are able understandingly to correct only those conditions which we can relate to the underlying physiology or pathology as we conceive it to be.

Instead of attempting to thread the maize of specific causes and their numerous combinations, the negative approach suggests itself. With a normal individual whose age, sex, size and training

are suited to the task assigned, and a proper state of nutrition and rest is maintained, morbid tire should not result except from extrinsic factors. Of those extrinsic factors, general terms only are covered by mention of comfortable and healthful surroundings, adequate equipment for the task, suitable hours of work, and proper attitude of supervisors, but with such conditions met, resulting fatigue definitely raises the question of a pathologic basis.

The symptom of fatigue presents itself under a great variety of conditions. It is unnecessary to presume abnormality of the organism because of the manifestation of fatigue. Since fatigue can be induced in a normal animal, we are led at once to consider the physiology of tire.

The normal animal tires only as a result of functional activity and this suggests metabolic alterations as its cause. Muscle tissue responds promptly in manifesting this symptom and lends itself to study. Phosphocreatine for some time has been regarded as the functioning component of muscle tissue. The catabolic process releasing the activity of function breaks down the phosphocreatine. The disintegration products thus formed are resynthesized in the anabolic process of restoration of tissue by the utilization of the sugar present. This utilization results in the formation of lactic acid which, under normal conditions, is further reduced by an oxidative process for elimination as a waste.

On the basis of this physiologic concept, Steinhilber<sup>1</sup> makes the following detailed postulations as possible causes of fatigue: "Depletion of the phosphocreatine store, as by the loss of one or both of its breakdown products. Failure of the resynthesis process as a result of some limitation being set on the production of lactic acid, which is most commonly due to the accumulation of lactic acid and therefore to inability to oxidize lactic acid because of a shortage of oxygen. The lactic acid thus accumulated enters the circulation and causes disturbances in the carbon dioxide carrying power of the blood in the respiratory center and in vasomotor regulation which an increased circulation can only temporarily compensate. Failure of the circulation to meet these demands."

These details of metabolism seem ample to account for tire as it relates to muscle tissue but somewhat short of covering the entire subject of fatigue. If the factors mentioned were the only ones involved, ample food and cessation from exertion should result in complete removal of the fatigue state. But attention repeatedly has been called to the fact that inactivity and food alone do

\* Presented before the Section on Medicine of the Indiana State Medical Association at the Fort Wayne convention, October 11, 1939.

<sup>1</sup> Quoted in an Editorial, *Jour. A. M. A.* 100:578—1933.

not make complete restoration from the state of fatigue in normal animals; and that the additional requirement is sleep. It seems highly probable that the work of the Zurich pharmacologist, Cloetta,<sup>2</sup> might bear directly on this subject. In this work it is revealed that with the stimulation of neuromuscular structures, cations (chiefly calcium and potassium) pass from the nerves and muscles into the blood serum and that, as a result of sleep, a remigration of these cations into the neuromuscular tissues occurs. The experiments of Danforth and Ivy<sup>3</sup> which reveal that when the available calcium is sufficiently reduced the uterine muscle fails to respond to normally adequate doses of oxytocics, adds some support to the presumption that calcium level is important to muscle response.

In regard to autonomic stimulation, Myerson<sup>4</sup> presents the concept of the cholinergic and adrenergic substances formed at the neuro-visceral junctions as the chemical activators of the cells stimulated. The action of the cholinergic substance is conditioned by an antagonizing esterase and a similar, though as yet unproved, antagonist is suspected as influencing the adrenergic principle. Whether this work is accurately corollary to that of Cloetta on the migration of calcium and potassium, to which reference has been made, is uncertain but it does tend to establish the fact that neural elements, as well as the cells activated, suffer alterations during their functioning which probably constitute an element of fatigue.

In normal individuals the development of fatigue on exertion may be delayed to a considerable degree by training. Practiced effort, repeating the same or similar acts, enables the individual to perform the same feats with less expenditure of energy. This has no particular interest for us, but it is further observed that the trained individual can perform wholly unaccustomed tasks with less evidence of tire. Mental attitude and other more or less imponderable factors might enter this particular phase of the problem. However, we do have one demonstrated condition which bears on the physiology we have outlined. Schultz and Blish<sup>5</sup> conclude that training increases the efficiency of the mechanism for glycogen storage as well as for oxygen transport. In this work we can see how training assists in muscle cell metabolism, both with regard to the resynthesis of phosphocreatine and to the elimination of the resulting wastes.

The myotonias on the one hand and the myasthenic states on the other have been subjected to careful reexamination within the past few years. We are encouraged by this work because the findings are agreeable to demonstrated physiology. There are reasons for believing that certain drugs influence the chemical mediation at neurovisceral junctions and it is thus that we find physostigmine, prostigmin and potassium chloride exerting a

favorable effect on myasthenia and making worse or having no effect on myotonia; and quinine favorably influencing the myotonias but without such effect on the myasthenic states. We have experimental evidence that quinine decreases the amount of acetyl choline in nerve tissue, and since we now recognize choline as the activating component at the myoneural junction, we assume that this explains its favorable action. If it can be further found that less choline or more of its esterase is produced at the nerve endings under the influence of physostigmine and related compounds, we shall have taken a further step in the understanding of these puzzling clinical opposites.

Since potassium chloride has so few things in common with the physostigmine group, we might consider the problem as to how it gets into the group of drugs relieving myasthenic symptoms. It seems improbable that the migration and remigration of potassium between muscle cell and blood serum would be so greatly influenced by the simple addition to the supply of this component. Extensive confirmation does not seem to have been made but Bloom's<sup>6</sup> experiments with potassium salts in hay-fever are interesting. An indirect adrenergic effect has been suggested but the release of acetyl cholin from certain tissues upon the injection of potassium chloride<sup>7</sup> is more impressive. Thus we find the cation, potassium, joining the list of chemical mediators of nerve impulses.

Other well known chemical mediators are the sympathomimetic drugs, epinephrin, ephedrin and benzedrine. These drugs have been studied chiefly from the standpoint of their peripheral adrenergic action but their widely observed effect on the normal phenomenon of sleep as well as their antagonistic action to the effects of narcotics and centrally acting anesthetics leaves little doubt that their action is central as well as peripheral. The work of Nathanson<sup>8</sup> on the central action of benzedrine definitely supports this presumption.

However brief the consideration of the subject of fatigue, it hardly seems fair to close on the item of causal factors without reference to the endocrines. Aside from the chemical mediation of epinephrine, to which we have already referred, it has been found that insulin diminishes the severity of myasthenic symptoms as does epinephrine, whereas thyroid and thymus extracts exaggerate this symptom.<sup>9</sup> It is very easy to surmise that insulin makes available larger amounts of sugar for the resynthesis of the phosphocreatine in muscle metabolism, and fatigue would thus be combated. Less easily understood are the influences of the other endocrines mentioned and conclusions seem to be awaiting further study.

From the miscellany of these several reported

<sup>2</sup> Foreign Letter, *Jour. A. M. A.* **104**:238—1935.

<sup>3</sup> *Amer. Jour. Obs. & Gyn.* **37**:184—1939.

<sup>4</sup> *Jour. A. M. A.* **53**:960—1937.

<sup>5</sup> *Amer. Jour. Dis. of Children* **53**:960—1937.

<sup>6</sup> *Jour. A. M. A.* **111**:2281—1936.

<sup>7</sup> Feldberg and Guimaraes: *Jour. Phy.* as quoted in *Jour. A. M. A.* **107**:1813—1936.

<sup>8</sup> *Jour. A. M. A.* **108**:528—1937.

<sup>9</sup> Foster, Kennedy and Wolf: *Arch. Neurology and Psy.* **37**:68—1935.



observations there can be added to the factors quoted from Steinhaus, cation migration induced by sleep, calcium content of muscle tissue, chemical mediation at the neuro-visceral junction and endocrine influence on tissue restoration from fatigue.

As we approach the practical subject of the treatment of fatigue, we need to remind ourselves that this symptom, under normal conditions, is the result of a defense mechanism. The more or less compelling sensations constituting this symptom are calculated to keep within safe limits the amount of exertion to which the individual subjects himself. The excuse for this rather obvious statement lies in the fact that it points to a comparatively large group in which we have only the interest of urging that proper limits of exertion be observed.

It is necessary that we omit mention of many of the obvious conditions contributing to fatigue but the character of sleep deserves comment. Sleep is a relative term and this fact is too frequently overlooked. To pass this point in history taking by recording normal sleep on the patient's statement that he sleeps well is often to miss the point and fail to recognize the absence of this restorative factor. The character of sleep, though it be uninterrupted, may be so light that no satisfactory degree of muscular relaxation accompanies it, in which case no appreciable degree of restoration from fatigue follows. The means to the end of restful sleep are so many and varied that details must be omitted, but the need for this opportunity for the remigration of calcium and potassium is important.

Of the major forms of pathologic tire some confusion exists as to just what factor or combination of factors are responsible. The factors are obviously intrinsic in character but satisfactory clinical tests for specific pathology are wanting. The present tendency seems distinctly toward the presumption that disturbance of chemical mediation at the neuro-visceral junctions is of prime importance.

From the list of drugs influencing chemical mediation, some have proved too evanescent in action, some too toxic and others having such uncomfortable by effects as to be impractical. Ephedrine, prostigmin\* and benzedrine sulfate† are the particular drugs of this group commanding the most attention. The pharmacology of ephedrine has been most largely studied for its peripheral sympathomimetic action and particularly as a substitute for epinephrine; but that its influence extends to other than the sympathetic part of the autonomies seems established by its effect in narcolepsy. In the milder myasthenic states and in narcolepsy of short duration, ephedrine produces favorable results in a considerable percentage of cases. If the higher dosages are required to obtain the satisfactory response, tremor and disturbed sleep are likely to force its discontinuance.

The synthetic substance, prostigmin, is less toxic than the miotic alkaloid, physostigmine, and is thought to be equally effective in its chemical mediation as it affects the myasthenic states. Dale, Feldberg and Vogt<sup>10</sup> state that the destruction of the acetylcholine is probably prevented by the inhibition of the normal blood choline esterase. The non-hygroscopic bromide salt of this drug may be used orally with equal effect and greater convenience than the ampules. A fifteen milligram dose repeated as often as the case requires has proved satisfactory. The abdominal pains and sleeplessness mentioned as accompanying annoyances have not been noted. Reese<sup>11</sup> calls attention pointedly to the need for caution in the administration of prostigmin. He reports this drug as being given to nine patients with myasthenia gravis. Five of the cases made favorable progress but in four an early improvement was followed by a progressive decline. The dose of prostigmin was then reduced and the decline was stopped to be followed by satisfactory improvement. In explanation of this happening, Reese makes the following statement: "If this dose (15 to 30 mg.) is administered for too long or is increased, a 'curare-like' effect which results in weakness, paralysis and finally death by respiratory failure may occur."

Benzedrine has attracted what may prove to be an undeserved share of attention during the past few years and the resulting medical literature is voluminous, indeed. Much of the work reported falls outside our present interest. Nathanson<sup>12</sup> makes as one of his conclusions that the drug should be of value in the preparation of individuals for activities that require an unusual expenditure of physical or mental energy. There is little doubt that this statement contributed to the brief vogue this drug had among students preparing for examinations. There seems to have been no controlled experiments reported in this field, and the only report appearing was that of a non-medical professor who stated that in the only instance of its use of which he had knowledge, it had failed because too much had been expected of the drug. There seems to have been no important additions to the pharmacology of benzedrine since the Council's report<sup>13</sup> though the cautions mentioned in the report appear to have relaxed somewhat. Reports of its use in a wide range of conditions gives little evidence of any serious influence on blood pressure. That the drug might bring harmful results by removing the protective sense of fatigue is a warning of the Council's report and should be heeded particularly in its use with patients past their prime. In no case is the unsupervised use of benzedrine justifiable but in the milder myasthenic states and in narcolepsy its use does not necessitate hospitalization.

\* Dimethyl carbamic ester of m-oxyphenyl trimethyl ammonium methyl sulfate.

† Beta-aminopropyl-benzene sulfate.

<sup>10</sup> Editorial citation, *Jour. A. M. A.* **107**:1813—1936.

<sup>11</sup> 1938 Year Book, Neu. & Psy. Endo. P. 101.

<sup>12</sup> *Jour. A. M. A.* **108**:531—1937.

<sup>13</sup> *Jour. A. M. A.* **109**:2064—1937.

The dose of benzedrine sulphate is not well determined on the basis of age or weight of the patient, and the administration of any dose after the evening meal is likely to interfere with normal sleep. The use of the ten milligram tablet, deeply grooved for division into fourths, is a convenience. As a starting dose, it has proved satisfactory to direct three-fourths of a tablet after the morning meal and one-half tablet after the noon meal. This dose is increased by one-fourth tablet for each administration after a re-check at two day intervals until the effective dose is reached or the upper limit of safety is approached. As to maximum limit of dosage, no definite statement seems justified. A

patient now under observation has been taking two tablets (20 mg.) after breakfast, one and three-fourths tablets after the noon meal and one-half tablet after the evening meal, with no discomfort, and wholly satisfactory results have been maintained for more than five months. If more of the drug had been required in this case, it probably would not have been given.

Although we are without definite diagnostic criteria in establishing the specific fault in any given case of pathologic fatigue, we are not dealing in an entirely empirical fashion when we make use of the drugs mentioned in relieving this symptom.

## WHO SHALL CHOOSE THE ANESTHETIC?\*

E. T. ZARING, M.D.

Terre Haute

The basis for this paper is necessarily laid in Terre Haute since the vast majority of my anesthetic activity has been either at the Union or St. Anthony hospitals there. For the past twenty years I have been looking for the ideal surgeon, anesthetist, patient, and anesthetic agent, but since the human element enters so overwhelmingly into the question, and since we are all subject to errors, we shall still have the mooted question of "Who shall choose the anesthetic?" The one thing that I am absolutely and unalterably against, and will always be against until proven wrong, is that *the patient has any right of choice*. True, he is the one most vitally interested, but does he tell the surgeon that he wants a right rectus incision, a midline, a Bassini or what-not? All that the patient can possibly know is what some well-meaning friends or relatives tell him; they may tell the patient that they had a needle in their back and have suffered ever since, or that they took ether once and have been nauseated these many years. Strangely enough, most of these arguments arise from the service or near-service floors. As one surgeon aptly states, "In the service department, they are experts on medicine, religion, and law."

In my opinion, the choice of the anesthetic should be left to the surgeon or to the surgeon and the anesthetist after consultation and after the patient has been examined carefully by the anesthetist.

Why the surgeon? For the reason that the patient has gone to him because of her faith and confidence in him. He has gone over her perhaps several times, carefully; he knows her whims, her peculiarities; he has gone carefully over the choice of hospital, choice of rooms, the expenses and everything down to the anesthetic. Why not add, "Dr. Doe will visit you, examine you from his standpoint, then upon his advice we shall decide the anesthetic best fitted for you." The surgeon knows what he

expects to do, how long it should take, how much relaxation he would like to have. After the visit of the anesthetist of the surgeon's choice, and upon his interpretation of the pulse rate, blood-pressure reading and the general physical condition of the patient, he most certainly is in a better position to suggest the proper anesthetic.

Why the anesthetist? Time was, even in my own experience, when the anesthetist was little more than the orderly, wheeling the patient to and fro, then seating himself, and proceeding to pour the ether, and I mean just that. He was fully occupied by the pouring of ether and watching the operation. Occasionally if the patient, by her gasping, attracted his attention, or if he ran out of ether and had to get another can, the patient got a brief respite and built up a little resistance to begin another battle. The operative procedures in those days were much longer than today. Why, I do not know. After a long two-hour operation, during which two or three cans of ether had been consumed, the patient was returned to her room, amid hot water bottles and blankets, to begin her recovery from the anesthetic—which usually required one to three days, *if she recovered* at all—before she began her operative recovery.

During the past ten or twelve years there has been a drastic change in the anesthesia problem. With the advent of the gaseous anesthetics and the new, delicately calibrated machines, the anesthetist who is abreast of the times has been forced to become a modern pharmacologist and physiologist, and has had to study constantly or go into retirement. The bond of fellowship between him and the surgeon is ever growing, each striving to render the patient that which he deserves: the highest, most modern surgical technic. Recently our staff at the Union Hospital went on record to the effect that, when possible, the anesthetist should visit and examine every patient, order the pre-anesthetic medication, and give his choice of anesthetic.

We have many good anesthetic agents harnessed

\* Presented before the Section on Anesthesia of the Indiana State Medical Association at the Fort Wayne meeting, October 11, 1939.



and they work rather gently in our hands. Ether and chloroform are our oldest and most tried. Ether still has its friends. Less than a year ago, I heard one of the chief anesthetists on this continent say, "A good ether anesthetic is a good anesthetic."

I have not given a chloroform anesthesia for fifteen years. I have in my time given a good many and, too, I have had my share of near accidents, but who will gainsay that a good chloroform anesthesia is not a good anesthesia? Who knows but that with our fast moving research work in all pharmacological drugs, they may yet return to chloroform as a modern anesthesia?

Spinal anesthesia has its field and I admire it. I think, in many cases of the hard, resistant upper abdominal surgery, it renders the patient operable better than any other agent at our command. It causes the surgeon to work faster with less trauma to the patient, therefore lessening the operative risk. I sincerely regret the black eye that spinal anesthesia has acquired. I truly believe it is unjustly criticized, chiefly through the misguided advice of the laity to the patient.

I have made a study of the after effects of my spinal cases and have never found a case of true deleterious effect following a spinal anesthesia, and if my records are correct, I have to my credit 1,087 cases, to be exact. Just about two years ago I observed a frank neurotic generalized paralysis following an attempted spinal anesthetic. This was a gall-bladder case, a very obese woman about 37 years old. Through some error, I failed to see, talk to, or examine the patient the night before. The surgeon requested a spinal anesthetic, and I prepared for the same, but the patient would not cooperate in the least and I failed to get into the spinal canal. Finally, in her rather drunken stupor, she informed me that she did not want a spinal at all. I immediately told the orderly to turn her over and I proceeded with an ether anesthesia. It was uneventful, but the next day she began with a typical toe-drop. Two days later, the toe on the other foot was affected. This ascended until the entire body was affected and, at the same time, she became hysterical about the spinal anesthetic that she had had. No argument could convince her that she had *not* had a spinal anesthetic. Her hospitalization was prolonged and she was bedfast for a long time at her home, but she is slowly improving. Imagine my surprise, and the surgeon's surprise, when just before the two-year period was up, he got a letter from an attorney informing him that suit was going to be instituted against us for a neglectful and shameful spinal anesthetic performed on his client. Imagine our further surprise when he told us we had erred by using a dangerous long-beveled needle, and that he had been fully informed as to the entire procedure by a good medical confrere, a friend of mine!

So you see, too many doctors and nurses unthoughtfully try to explain the mechanism, super-emphasizing the dangers to the laity, even to lawyers, so that in the end, when the choice of

anesthetic is thought of, no wonder the patient (possibly a neurotic) sees nothing but a hopeless bed of paralysis.

Avertin is an exceedingly useful basal anesthesia and never was intended for a true anesthetic. I use it and like it very much, especially in the young and, in fact, in any patient where not contraindicated. It seems to work better for me in those surgical procedures above the diaphragm. I have not yet had a case where I regretted using it.

Cyclopropane is our latest and most popular anesthetic today among surgeons and anesthetists, and I believe it has done more to make good anesthetists than any other anesthetic agent. I also believe you will agree that one who can give a good cyclopropane anesthesia is a good, careful anesthetist. It has its drawbacks. First, the safety element, a menace which hangs over every anesthetist's head like a dark cloud, against which we are bending every effort to prevent an accident. Second, the cost is almost prohibitive to the patients within the lower income brackets and to the indigent cases. There has been a substantial cut in its cost and perhaps another will soon follow. I think it bears more study.

I long and hope for the day to give that anesthetic, gaseous or otherwise, which can be given with the least mechanical apparatus, an anesthetic proven to have no deleterious effect upon the blood or respiratory mechanism, and one that will *never* get a stern look from the surgeon or assistant, or provoke the question, "How is she?" When the operation is through, the patient looks in the anesthetist's face and says, "It didn't hurt a bit, Doc; I feel good." With that she is placed on the cart, leaving all thoughts of the anesthetic in the operating room, and is taken to her room to begin her operative recovery.

## DISCUSSION

F. T. Romberger, M.D., (LaFayette): I quite heartily agree with the substance of Dr. Zaring's paper, but would like to make two little distinctions: first, instead of saying that the choice of the anesthetic should be by consultation between the surgeon and the anesthetist, I would rather place it this way—the choice of the anesthetic should be up to the anesthetist in consultation with the surgeon. There is a reason for making that statement. We must assume, of course, that the surgeon knows what he wants to do in the way of surgical procedure. Let us also assume that he wants a certain type of relaxation, for example; yet, in my judgment, many times surgeons are not familiar with the agents and what can be done with the different agents at our command. For example, take any one of the anesthetic agents, ether or cyclopropane, we, as anesthetists, are in a better position to know what we can give to the surgeon in the way of anesthesia than he is, himself. I think that also applies to intratracheal, intravenous, and other types of anesthesia.

For the second thing, I would like to leave a

thought, and that is this: If the patient has anything to say with regard to the choice or the administration of the anesthetic, I like to hear what that patient has to say, though I would not allow it to influence me too much. Many times it

gives me an inkling of some little trick of application which will avoid things which may, in his or her previous experience, have been distasteful or uncomfortable, and it enables me to give a more satisfactory anesthetic to that patient.

## INTERMITTENT COMPLETE HEART BLOCK

### REPORT OF A CASE

ROBERT E. LYONS, JR., M.D.

Bloomington

This syndrome has been the subject of recent papers by Comeau,<sup>1</sup> Dubbs,<sup>2</sup> and Parker and Willius.<sup>3</sup> Two of these, Comeau and Dubbs, in addition to the report of their own cases, present a careful review and analysis of the few typical cases that have been subjected to electrocardiographic examination now on record in the literature. Although minor differences appear in the criteria used by the two authors in the selection of cases for analytical study, it is emphasized that but few authentic and adequately described cases of intermittent complete heart block are at present available for such study.

I wish to submit the case of an elderly man, H. R., who has experienced four attacks within the period 1920-1939.

The patient was first examined by me in consultation with his family physician on April 7, 1939, during a period of semi-consciousness associated with "a very slow pulse." The attack, then present for six hours, had begun suddenly while lying down and was ushered in by vomiting which was recurring at intervals and being followed by

syncope, without convulsive movements, of a few minutes duration. During the periods when he could be partially aroused he complained of dizziness and shortness of breath but not of nausea. The vomiting would occur without warning but was not projectile.

This syndrome continued for another five hours when suddenly the heart rate jumped from 20 to 60 per minute. The rate of 20 per minute, counted at the apex, never varied during the entire sequence of events described and was regular in rhythm.

Past History: Until the occurrence of the seizure April 7, 1939, he had been able daily to carry on his occupation of farming except upon three occasions when similar attacks took place. The first of the previous seizures occurred in 1920 with "very slow pulse" but the exact rate is unknown; the second occurred in 1931 with a rate of 25 per minute; the third in 1934 with a rate of 17 per minute as verified by the records of the family physician. Each of these three attacks was ushered in by shortness of breath, dizziness, vomiting and loss of consciousness, the onset and termination of which was always sudden. The heart rate during the intervals between attacks was 60 per minute.

In addition to the above he had an illness in 1924 with jaundice but details are unobtainable; in the past year he has had shortness of breath on exertion and swelling of the ankles in the evening.

Family History: It is worthy of note that a

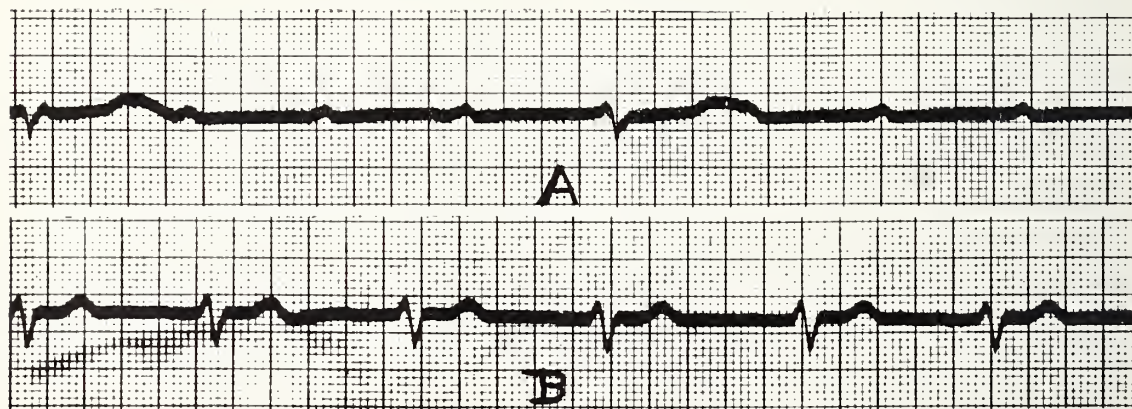


FIGURE I

A. Lead 2, April 7, 1939, shows complete auriculo-ventricular dissociation.

B. Lead 2, April 8, 1939; Normal sinus rhythm at a rate of 60; P-R interval 0.24 second; QRS segment measures 0.12 second. Delayed auriculo-ventricular conduction and incomplete bundle branch block.



brother had dizzy spells with loss of consciousness; pulse rate unknown; died at age 64 from the effects of a fall from a hay loft. His mother died at 74 of cancer of the stomach; his father died at 83 of an illness pronounced "liver trouble."

Personal History: Married; two children living and well; life time total abstinence from alcohol and tobacco.

Physical examination, April 7, 1939: White male, age 82, lying flat in bed; skin moist, cold; respirations, 30; temperature 97°; pulse 20, regular, and of fair volume; blood pressure 140/68. Head and neck negative except artificial teeth; chest emphysematous type; heart borders could not be outlined (x-ray examination not available), apex beat not palpable; upon auscultation, the heart sounds were very faint but present at the apex and base with no murmurs. The rate at the apex was 20 and regular. The lungs showed evidence of chronic passive congestion. The abdomen was flat and no masses palpable but the liver edge extended about one finger below the right costal margin. The lower extremities revealed pitting edema of ankles and feet. Lead 2 of the electrocardiographic tracing made during the seizure, April

7, (A with legend) is shown in figure I.

Further examination on the day following the attack of intermittent complete heart block revealed: temperature 98.6°; respirations 22; pulse 60 and regular; blood pressure 150/70; urine clear, acid, Sp. Gr. 1020, no albumin or sugar, no findings in microscopic examination of urinary sediment. Red blood count 4,840,000; hemoglobin 13.0 gm. per 100 cc. Serological tests for syphilis negative. Lead 2 of the electrocardiogram taken April 8, (B with legend) is shown in figure I.

#### COMMENT

The electrocardiographic tracing B reveals the P waves to be of very low potential. Two later tracings, taken July 21 and August 9, not incorporated in this report, demonstrate the same finding.

The patient experienced no further attacks in the interval between April 8 and August 10.

The most recent tracing, August 9, shows the same slight prolongation of both the P-R interval and the width of the Q R S. In addition it shows "dropped beats" which is a new development in the case presented.

321 EAST KIRKWOOD AVE.

#### PSYCHIATRY NEEDS COOPERATION OF THE GENERAL PRACTITIONER

Closer cooperation and collaboration between the general practice of medicine and psychiatry will bring about not only a more practical understanding of the possibilities of the latter but also benefits to the patient from both branches, John D. Campbell, M.D., New York, declares in *The Journal of the American Medical Association* for June 24.

Pointing out the lack of understanding which has arisen between psychiatry and other branches of medicine, Dr. Campbell urges cooperation among general physicians, specialists and research workers in the further development of this branch. Misunderstanding, he says, has arisen partly from the fact that psychiatry is a new branch, that there are several schools of thought and that the average physician does not have the time to investigate them for himself. The wise psychiatrist, however, is aware of all these schools of thought and applies them according to the case in hand.

Training which provides a better understanding of everyday people, neurotic patients and patients on the borderline between normal and abnormal is important for every physician, Dr. Campbell believes. It is more important than training which teaches about patients who are definitely deranged mentally, for they are usually sent immediately to special institutions.

"Today as always," he says, "one of the most important problems to both the psychiatrist and the general physician is that of psychoneurosis. The physician who has been trained in cellular pathology and bacteriology finds it difficult to understand the psychoneurotic patient in the light of this training. He must learn to analyze the neurotic symptom. It is an actual disturbance dependent on changes in three definite and important systems of the human body."

Some writers, Dr. Campbell observes, have aptly compared the neurotic symptom to a referred pain. Just as a stomach pain may be a symptom of appendicitis, so may the neurotic pain be an outward manifestation of a repressed painful thought.

"It is erroneously supposed," he continues, "that the neurotic individual could prevent or forget his symptoms if he only cared to do so. The neurotic symptom

is itself a by-product of a sincere attempt to overcome a more serious problem. It is a substitution, a replacement of a formidable difficulty by a simpler one. The patient is finally able to effect a compensation, so that when the physician is confronted with a simple neurotic symptom he should visualize the agonizing battle which occurred within that patient before the symptom was evolved."

Discussing the school of psychoanalysis or "repressed ideas," Dr. Campbell says that it has tended to overshadow its mother subject and has led many to believe that it dominates the whole field. At present, he is convinced, psychoanalysis does not go far enough in explaining the causes of psychic disturbances.

Psychoanalysis is based on Freud's idea that painful ideas and unacceptable wishes, from early childhood, are repressed into the unconscious mind and later make their appearance transformed into outward manifestations which are called neurotic symptoms.

"Freud stated that his theory was not incompatible with an organic or physiologic explanation," Dr. Campbell observes. "Unfortunately, we have too many enthusiasts who blindly study the freudian mechanisms without trying to find a physiologic explanation for them. Tendencies today are pointing again toward research in chemistry, physiology and endocrinology for an explanation of the neurosis.

"Certain enthusiasts, some of whom were poorly adjusted themselves, have connected psychoanalysis with sex perversion and voodooism, causing the scientific medical man to beware of its influence. Today, however, Freud's teachings are becoming settled to their practical application. Our best analysts recognize and speak of its limitations, but all psychiatrists feel indebted to psychoanalysis not only as a method of treatment but as a school of psychology.

"Psychoanalysis of the family should be of particular interest to the general physician. He is in an ideal position to observe a family over a period of years. The family physician, who has insight into important relationships, is in a position perhaps to save a susceptible child from a miserable life of neuroticism."

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NOVEMBER, 1939

## *Editorials*

### THE FORT WAYNE CONVENTION

A year ago a group of Fort Wayne men came to Indianapolis and asked that the 1939 sessions of the Indiana State Medical Association be assigned to their city, declaring that they were able to provide all that was necessary for a successful meeting. They got what they wanted and they lived up to all their promises. We do not recall ever having attended one of these annual meetings where every conceivable arrangement had been made for the personal comfort, enlightenment, and entertainment of Hoosier medics. From early Monday morning (always a "gray day" in our conventions, since it is get-ready day) until the last guest had passed outside the city limits of Fort Wayne on Thursday afternoon, nothing was left undone to make good the Indianapolis pledge. Without ostentation, the members of the Fort Wayne Medical Society made it clear that their sole duty and occupation was to see to it that every guest was cared for properly.

True it is that the hotel capacity of the city was taxed to the utmost and that at times meeting places were somewhat crowded. When President Van Buskirk called the convention to order there began one of the most successful sessions in our long history. The total registration was 1,332. There were 778 members, 293 ladies, 162 men guests, and 99 exhibitors present.

Early on Tuesday morning the golfers clattered across hotel floors, each eager to be in the first foursome to tee off, and they seemed not to notice the frequent showers. First prize was awarded Dr. R. R. Acre of Evansville, who carded a fine

80 over the fairways of the Fort Wayne Country Club.

The nimrods came a bit later, guns in hand, for skeet and trap shooting. Dr. C. W. Cullmane, of Evansville, won the all-gauge skeet shooting championship, scoring 50 straight. In trap shooting, Dr. C. M. Donahue, of Carmel, won the Class A championship with a score of 93 out of a possible hundred. In the handicap event, Dr. John Lansford of Redkey hit 48 out of 50 to win first place.

Dr. E. T. Gaddy, of Indianapolis, bested his only opponent, Dr. Neil Davis, of Lowell, in the archery contest.

Tuesday night the men gathered in the auditorium of the Shrine Temple where divers entertainment—boxing, wrestling, etc., were in order. A little later they congregated in the club rooms of the Chamber of Commerce where a buffet supper with what seemed to be an inexhaustible supply of Gambrinic nectar was available. The usual bridge games were soon under way, others electing to play a little poker or, perhaps, watch the turn of the dice.

Wednesday morning the scientific programs were begun and continued throughout the day and until Thursday noon. After the usual welcoming speeches, President Van Buskirk presented his official address and was followed by guest speakers, Dr. Joseph Felsen, of New York City; Dr. B. R. Kirklin, of Rochester, Minnesota; Dr. Frederick W. Clement and Dr. E. G. Galbraith, both of Toledo, Ohio, and Dr. Emmet F. Horine of Louisville, Kentucky. With an attendance of 275 physicians, these speakers were received with great appreciation. Enthusiasm at this meeting was dampened because of the untimely and sudden death of Dr. B. G. Keeney of Shelbyville, who died while attending this particular session, and who was to have served as chairman of the Section on Medicine on Wednesday afternoon.

Sections on Medicine, Surgery, and Anesthesia held their meetings in the afternoon on Wednesday. Complete reports of the proceedings of the general meetings and of the section meetings will be found in this issue. The Section on Ophthalmology and Otolaryngology held no meeting this year because the meeting of the American Academy of Ophthalmology and Otolaryngology was held in Chicago the same week.

Wednesday evening the annual banquet was held in the Valencia Gardens in the Shrine Temple. Because of a slip-up in arrangements regarding the tickets, it seems that folk without tickets seated themselves at the tables while dozens who had bought tickets in advance could not find places. This perturbed the committee in charge, but nothing much could be done about it. A cocktail hour was announced to precede the banquet and many took advantage of this feature. Our observation is that a cocktail *ten minutes* would have made things much more comfortable for what little



speaking was done at the table, and for the Scottish Rite Cathedral Choir, an unusually good group of singers who could not be heard in the din about the room. Immediately following the banquet, guests adjourned to the auditorium to hear addresses by A.M.A. president-elect, Nathan B. Van Etten, and George Lang of the University of Alabama. Dr. Herman M. Baker was presented with the customary certificate of appreciation for his service as president of the Association in 1938.

The annual breakfast meeting of the House of Delegates was held in the Hotel Anthony, Thursday morning, with the election of officers for 1940 resulting as follows:

President (elected in 1938): Karl R. Ruddell, M.D., Indianapolis.

President-elect: A. M. Mitchell, M.D., Terre Haute.

Treasurer: A. F. Weyerbacher, M.D., Indianapolis.

Delegates to the A.M.A. (two years): Don F. Cameron, M.D., Fort Wayne, and F. S. Crockett, M.D., Lafayette. Alternates: N. M. Beatty, M.D., Indianapolis, and A. M. Mitchell, M.D., Terre Haute.

French Lick was selected as the place of meeting in 1940.

The Council held a final meeting, and the Editorial Board went into a protracted conference to consider plans for *THE JOURNAL* for the coming year.

Thus ended a highly successful meeting. The attendance was up to normal, the program was of unusual excellence, and our hosts were the best ever.

Comments on the various features of the convention will be found in the following pages under "Convention Notes."

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## INDUSTRIAL MEDICINE

Indiana has joined numerous other states in the legal recognition of occupational diseases, making them compensatory. We long have anticipated such a step, since modern industry continues to have its health hazards, even though thousands of dollars annually are spent in bringing about better working conditions for employees. And with the coming of these new regulations in our own state, the medical profession has much before it.

We, of course, have for a long time connected certain disabilities as having to do with the nature of the employment of the individual and the profession has done much to bring about the changes necessary to eliminate much of the source of these troubles. But much remains to be done. Intensive studies must be made as to the "how and why" of many occupational diseases. Lines of demarcation must be squarely set, lest we go too far in attributing many physical ailments to industrial causes.

Our medical societies will find it advisable to set up special committees for the study of these cases and our medical schools must immediately recognize that these things exist and must make curricular changes to meet these conditions. As we have said, industry has done much to take the hazard out of many occupations. Some few years ago the match industry awakened to the fact that "phosphorous jaw" was a mighty problem and set about doing something about it. Chemist Franklin Moore was engaged to make an exhaustive research into the subject and finally succeeded in removing the hazard from this great industry.

Numerous other similar examples might be cited along the same lines. Only a few years ago silicosis began to be talked about in medical circles and soon there were almost innumerable cases filed in our courts, the claimants setting forth that they were victims of this disease. At the present writing we do not hear of so many such suits, though of course silicosis remains an industrial hazard.

There is another feature that needs our consideration, that of other employment for victims of occupational diseases. Many of these folk are not economically situated so as to retire from active employment and it is necessary that they carry on for a livelihood. We can do much for these employees; there are many other occupations in which they can be usefully engaged and it should be one of the duties of the doctor to outline such employment. True it is that they have Federal Social Security to look forward to, but that, too, is a problem of the future; no one should undertake to foresee just to what degree that "security" will reach.

This is but another of the many problems that seem to be piling up on us but the profession, somehow or other, has managed to meet as serious problems before and has been enabled to offer solutions.

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## HOBBIES

To the great delight of many who attended the convention, the hobby exhibit was an actuality this year—and such an exhibit as it was! Most of the exhibits were from the Fort Wayne territory, but in spite of that it was of sufficient size and variety to indicate that physicians do have their hobbies.

Old books, chiefly those having to do with medicine, were in abundance. Many of them were more than a hundred years old, and some were exceedingly rare.

In one end of the large room was a display of evergreens, all raised by a local physician. Glassware and old bottles were in abundance and included a genuine "fish" bottle, now extremely rare, we were told.

Camera studies and self-made enlargements were shown, some of them having a high degree of artistic ability in posing and in lighting effects. One exceptionally well done ship model was on

display and, of course, the collections of philatelists were there.

One peculiar hobby was that of collecting semi-precious stones in the rough. Garnets, moonstones and such gems were among the exhibit, and the exhibitor told of his laborious work in making a garnet necklace for his wife, a work that occupied much of his spare time for two years. This particular physician enjoys nothing more, these cool fall days, than to take a short crow bar and a geologist's hammer and explore the rocky bed of some local stream.

There was a set of small pitchers that attracted attention—probably twenty-five of them in the group, and of course the Indian arrowheads had their place. Guns and pistols, some of them price-less as antiques, were on display. China and porcelain was distributed about the room. Saddle bags, old medicine kits, and sets of extremely old surgical instruments were in more or less profusion. Old prints were numerous. Batik wall hangings of unusual beauty (we remember two) decorated the wall along with oil paintings that were the work of a physician. However, we did not note a single Currier and Ives print. There were a few old clocks, one of the grandfather type, and we were sorry that the history of that clock was not available. Rare silver, old documents such as Federal Land Grants, scrap books, and a collection of convention badges were there. We missed two things in the exhibition—a collection of old pewter and what we used to know as milk china.

The palm, however, must be given to Dr. J. W. Bowers of Fort Wayne for his display of big game trophies. The mounted heads of caribou, deer, bear, goat, and others which we do not remember, completely covered a stage at one end of the room, and the exhibit was very artistically arranged. One piece, a Kodiak bear rug, with head and claws quite natural, was a beautiful piece of work; the animal measured more than ten feet in length!

The hobby exhibit was eminently worth while. It attracted much attention and should be made a permanent part of our annual conventions.

## PLACES OF MEETING

While it is the province of the House of Delegates to name the place for our annual meetings, this subject was discussed at the first meeting of the Council. Our annual conventions have so increased in popular favor that the matter of attendance has given us much concern because there are so few points in our state equipped to care for the many hundreds who register each year.

From time to time it has been suggested that all meetings be held in Indianapolis, since that is the most available spot for the average member. Then,

too, our commercial exhibitors prefer to show their wares in that city because the attendance usually is larger than at other points within the state. However, our capital city lacks much of being an ideal convention point for our Association. The hotel accommodations are ample, but a suitable meeting place is far removed from the hotel district. These observations are but those made during the Council discussion of the subject and do not especially reflect the opinion of THE JOURNAL.

It is a bit too early to get a cross section of opinion regarding Fort Wayne as a convention city, though there can be no criticism of the efficient manner in which the local society functioned. Gary, the scene of two conventions in past years, does not afford sufficient hotel accommodations. South Bend, while well supplied in this regard, does not afford banquet space for what has come to be one of the most popular features of our annual gatherings.

Occasionally we have gone to French Lick, in many respects the ideal convention spot for us, since every feature of the meeting is under one roof. While the commercial exhibit is not so large at that point, the financial phase is evened up by the fact that there is no extra expense for official luncheons and dinners which the Council and House of Delegates have each year. Numerous members object to the hotel rates at French Lick, but our observation has been that our personal expenses are less at that point than elsewhere about the state.

Occasionally we have tried smaller communities, only to find that while our presence may have had a salutary effect on local medicine, the inconveniences far outweigh the advantages.

So it comes down to a choice between not more than four—really we should say three—points to be considered when deciding “where do we go next year?” Much as we would like to go on tour and cover all sections of the state with the “big show,” it is impossible. Convention going, after all, is quite a task and the more accessible the various section and conference places, the more personal comfort there is for those attending. We do not know just how it could be managed but it would be helpful if we could have the invitations well in advance of our meeting, so that the proper officials might be able to check up on the accommodations offered.

COMPLETE REPORTS OF THE FORT WAYNE CONVENTION ARE PUBLISHED IN THIS ISSUE. READ THEM. KNOW WHAT YOUR ASSOCIATION IS DOING.



## Editorial Notes

North Carolina is to publish an official Journal of its own. Dr. Wingate M. Johnson, Winston-Salem, is to be the editor, and Dr. T. W. M. Long, of Roanoke Rapids, will be the secretary and business manager. Congratulations and best wishes for success!

That the syphilis problem remains with us and that strenuous efforts are being made to do something about it is evidenced by an additional WPA grant made to the Indiana State Board of Health, recently, in the sum of \$55,140.00. Secretary Harvey announces that the greater portion of this fund will be used in providing additional help at the 23 clinics now operating in Indiana.

In these days of modern medicine publishers of medical dictionaries find it necessary to issue new editions rather frequently to keep up with the new names and terms coined to describe hitherto unreported conditions and diseases; not so in the "old days." Reginald Fitz of Boston in 1886 coined the term "appendicitis," 127 years after Mestivier, a French physician, first described this disease, according to an editorial in *The Journal of the Medical Association of Georgia* for September, 1939.

The Council again reminds district society officers that it is very important to so schedule their meetings that they will not conflict with dates already set by other such organizations. During the past two or three years conflicting dates have been fewer than in former years but there is yet room for improvement. Of recent years it has come to be expected that some of our Association officials will attend these meetings, and conflicting dates makes this impossible. As soon as you have set a probable date for these meetings, advise headquarters immediately.

The Hall of Health was an exhibit presented at the Allen county court house during the recent convention, and it was just one of the many innovations presented by the Fort Wayne Medical Society. This exhibit was planned by the local society together with the Indiana State Medical Association and the Indiana State Board of Health. In addition to the various exhibits, all of which attracted unusual attention from Fort Wayne residents, there was set aside the assembly hall in which five movies were shown, each having to do with a health problem.

According to *Steel Facts*, the monthly organ of the American Iron and Steel Institute, steel now ranks the third safest of all industries. Well do we recall the time when the iron and steel industry was responsible for the very great percent of industrial injuries. "Safety first" long since was adopted as the motto of this manufacturing group and though the cost of instilling this axiom into the minds of the employees was huge, it has paid magnificent dividends both as to economic costs and as to the prolongation of life and health of employees.

The past year has noted the passing of many notable men of medicine, the latest of the group being Dr. Harvey Cushing, generally regarded as the most brilliant brain surgeon of his time and also an authority in the field of the ductless glands. As a writer he held the attention of the thousands of medical men who keep pace with current medical literature; his *Life of Sir William Osler* stands out as one of the masterpieces of that type of literature. The medical profession has lost one of its greatest characters, a man who commanded universal respect.

The Council of the Indiana State Medical Association has named Drs. E. L. Van Buskirk of Lafayette and James F. Balch of Indianapolis as members of the Editorial Board for a period of three years. They will succeed Drs. F. T. Romberger of Lafayette and T. B. Rice of Indianapolis, whose terms expire December 31, 1939. THE JOURNAL takes this opportunity to express appreciation for the work that the retiring members of the Board have done during their years of service on the Board, both of them having been appointed to the Board at the time of its organization in 1932.

Michael M. Davis, concerning whom most of us have heard much, again breaks forth with an article which is not wholly complimentary to the medical profession or to the American Medical Association. The article is printed in the September number of *Survey*, and is entitled, "Senators, Doctors and National Health." It seems that Mr. Davis is at present engaged in a five-year study of economic problems, the funds necessary for this work coming from a Rosenwald Foundation grant in the sizable sum of \$135,000. He "speaks strongly for the so-called Committee of Physicians and bitterly if not sneeringly about the American Medical Association," says an editorial in *The Journal of the A.M.A.* In concluding the editorial, Editor Fishbein rather quaintly and truthfully remarks, "By most physicians the testimonial of Mr. Michael M. Davis will not be considered an endorsement."

The subject of geriatrics is attracting considerable attention, physicians having become interested in the many problems presented by these "oldsters." The prolonging of human life brings many ailments that were not so commonly met in this type of patients in years past. An article in *THE JOURNAL* for August, written by Dr. J. B. Maple, of Sullivan, in which he offers an interesting discussion of this subject, has attracted much attention from outside Indiana. Numerous requests for copies of that issue of our magazine have been received, so many, in fact, that our reserve supply long since has been exhausted.

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According to the *Greensburg Times* the trustees of the Decatur County Memorial hospital plan to go before the Decatur County Council, asking for an appropriation for additional accommodations. The original hospital was opened on February 4, 1922, and the fact that such an institution filled a great need in that community is evidenced by a statement as to the number of patients annually treated therein. In 1932 the total number of patients admitted was 297; six years later, in 1938, the number had risen to 678. For the first six months of 1939 the increase was 43 admissions over the same period in 1938. The number of patient-days, which now seems to be the standard of measurement of hospital occupancy, had risen to 6,383 in 1938.

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At a meeting of the Editorial Board held during the Fort Wayne convention it was voted to discontinue the Topic-of-the-Month feature that *THE JOURNAL* has used for the past two years. This decision was reached only after considerable study, during which time many members over the state were consulted. We are of the opinion that the idea was very much worth while but that it would probably lose much of its popularity if continued for another year. However, occasional numbers of the magazine will be devoted to special subjects, the May, 1940, number having been selected to feature Conservation of Vision, a subject that has commanded much attention during the past few years.

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Despite the fact that *THE JOURNAL*, in its pre-convention number, and the program booklet for the annual meeting carry announcements saying that "all papers presented before the meetings of the Indiana State Medical Association become the property of the Association," there seems to be considerable misunderstanding as to just who *owns* such papers. The Constitution of our State Association definitely and very distinctly says: ALL PAPERS PRESENTED BEFORE OUR ANNUAL MEETING ARE THE PROPERTY OF THE ASSOCIATION! Further, that such papers cannot be published elsewhere

until after they are published in *THE JOURNAL*. We had two instances following the recent annual meeting in which the authors misunderstood this rule, causing considerable embarrassment not only to the writers but to the officials of the Association and *THE JOURNAL* staff as well.

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The Indiana State Board of Health, under whose supervision all school buses are operated, has every reason to be proud of the safety record achieved, not a serious accident in the many millions of miles covered by the operation of these vehicles. Now comes the announcement that the sheriff of Marion County intends to see to it that additional precautions are taken to insure the safety of the school children in that county. The state traffic code, as is generally known, requires automobile operators to stop if they meet a school bus that has stopped to take on or to discharge children. Since these buses are easily identified, there is no reason why the motorist should not heed this law. In Marion county a campaign is now on to enforce this provision and it might be well for the sheriffs of other Indiana counties to engage in a similar campaign.

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Soon after the 1938 volume of the American Medical Directory was issued a physician came to us with a complaint that his name was listed in small type, much to his embarrassment. He was advised that this was not an error, but that it had occurred because he had become delinquent in his local medical society. In addition to some degree of chagrin one might have at not being "among the elect," this small type listing has other serious angles. Life insurance companies, in making the appointments of medical examiners, invariably consult the directory and choose their appointees from those who are members of their county medical society. The 1940 volume of this invaluable book is now in preparation and it would be well for all who have permitted their county society memberships to lapse to see to it that they are reinstated.

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Answering the question as to why Christian Science practitioners are not amenable to the laws relating to the practise of the healing art, the *Rocky Mountain Medical Journal* for April, 1939, quotes from a recently issued book by a member of the Chicago bar, Mr. I. H. Rubenstein, as follows: "Christian Scientists can testify in court, but are disqualified as jurors wherein personal injury, or illness, and mental anguish are issues. Neglect to call medical or surgical aid, when indicated, reduces the amount of recoverable damages, regardless of religious beliefs. Christian Science practitioners are liable for malpractise only as are other practitioners, for failure to render care according to the usual standards of their respective order. \* \* \* Many states eliminate Christian Scientists from their medical practise



acts but require them to conform to health regulations in the presence of epidemics or catastrophe, wherein their nonconformity would endanger others."

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An Association official, in writing to us concerning the recent JOURNAL survey, made some rather caustic comments. It seems that he was under the impression that we sent these letters to the entire membership, when but some five hundred were sent out. Among other things he says, "I'll buy the beer if one percent reply." As a matter of fact, nearly fifty percent replied to the letters and their varied answers gave the editorial staff a very good cross section of medical opinion throughout the state, as will be evidenced by a reading of the special article in the October number of THE JOURNAL.

We take this opportunity of thanking those who responded to our letter, thus enabling the editorial staff to plan for the future of our magazine. We received a few letters which we believe should be answered, since these writers bring up matters that are worth serious consideration. THE JOURNAL survey was well worth the effort; we learned much that should be of benefit to all of us.

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Have a care as to the diagnosis and treatment of dyspepsia in persons over the age of forty-five, is the advice given by Andrew B. Rivers, M.D., of Rochester, Minnesota, in *The Journal of the American Medical Association* of September 23rd. Too often, says this doctor, such gastric symptoms are the forerunner of cancer. He also decries the "broadside" advertising carried on in the lay press and via the radio by the manufacturers of various nostrums, leading the listening and reading public to believe that the preparations so advertised are of a panaceal nature. The article gives the percentage of incidence of gastro-duodenal malignancies for age groups from 40 to 60, this range being from 4.4% to 12%. The older groups also are indexed, the 69 year old group having a cancer incidence of 31%. One of his conclusions is worth repeating: "To assume that an elderly person of 70 years or older, who complains of repeatedly recurring dyspepsia, is suffering from some unimportant condition is hazardous in the extreme. In 44 percent of such cases cancer was demonstrated."

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According to the executive secretary for the Lake County Medical Society, Mr. R. W. Waterson, medicine and politics do not mix. Mr. Waterson adds that the medical body of which he is secretary approves any system of distributing medical care that permits the free choice of physician, but he

says that if the combination of politics and medicine fosters state or other socialized medicine plans, the Lake County Medical Society will fight. He says:

"There can be no adding machine methods in the practice of medicine because, for serious illness, identical treatment is as rare as identical twins. The family physician must know his patient from long association to give the best of medical care.

"Any system that does not give the patient free choice of physician makes the physician the employee of a third party and not the patient. The physician, therefore, becomes a good employee not because of the cures he effects but because of the money he saves for his employer."

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The Lake County Syphilis Survey, a project inaugurated early in January of this year by the United States Public Health Service and the Indiana State Board of Health, but under the immediate direction of the Lake County Medical Society, is being continued for an indefinite period. Originally the plan was to complete the survey within a period of six months, but so many important developments have arisen that it is deemed wise to carry on the investigation.

The local society has named a Survey Committee which holds frequent meetings and is in full and active charge of all details. The State Board of Health has installed a complete laboratory service in Hammond with a director and two technicians in charge; two outside inspectors are employed, full time, and it is planned to engage additional personnel. The physicians of the county were a bit slow in "lining up," but at the present time of the 249 licensed physicians in the county, 248 have indicated their full cooperation, hence adding materially to the assured success of the project. Details of the survey cannot be announced at this time, but the fact that several thousand serological tests have thus far been made and that more than 2,000 cases of syphilis are under active treatment in the county is proof positive that the thing finally is "going over in a big way." For many years a venereal disease clinic has been operating in Hammond and one recently was installed in Gary. The laboratory is averaging some 200 serological examinations daily. From the findings thus far we feel that it would not be an exaggeration to state that Lake County has some 12,000 to 15,000 cases of syphilis within her borders.

Certain of the larger industries have made serological studies of all employees and all applicants for employment. In these larger group studies, the average of positive findings consistently remains at about 4.5 percent. It is expected that at a later date THE JOURNAL will be permitted to publish a complete record of this survey.

## Convention Notes



E. M. Shanklin  
*Journal editor*

Karl R. Ruddell  
*Incoming president*

E. M. Van Buskirk  
*Retiring president*

*Staff photo, Fort Wayne News-Sentinel*  
A. M. Mitchell    A. F. Weyerbacher    M. A. Austin  
*President-elect    Treasurer    Council chairman*

No long-distance speech records were broken in the first session of the House of Delegates. The co-champions, Sensenich and Crockett, had little to offer, the former saying nothing and the latter perfunctorily reporting as to his committee's work. Can it be possible that these boys are slipping?

Sign observed on what appeared to be a high class eat shop in downtown Fort Wayne: "Welcome, members of the Indiana State Medical Association; all our food spertified."

Met a man getting into an elevator at the Keenan on convention Wednesday afternoon; he said he was about done in, that he was a member of the reference committee which had been in session for more than five hours and that there was yet much to be done before the last meeting of the House. It reminded us of the days long gone when committee meetings were of the perfunctory sort or, more commonly, the chairman wrote the report without conferring with other members of his committee. Just goes to show the difference between a live, go-gettin' society and one that manages barely to make the grade.

Jim Niblick, of East Chicago, was the happiest man in Fort Wayne, Wednesday morning; seems as how his clinic had been under the critical eye

of the State Medical Board, of late, on account of one of his men having license trouble. "Nib" surrounded himself by a high-powered attorney and went into conference with some of the Board members who were attending the convention. It required but a moment to explain matters to the satisfaction of everyone concerned so Jim paid off his attorney, puffed out his right jaw a bit more, and went on his way, whistling "Happy Days Are Here Again!"

Mrs. Neal Davis, Lowell, had one heck of a time with her better half; seems that Neal just would get out with the boys—nothing wrong about it, of course, but he just didn't manage to keep the various appointments he had with the Missus. It took a whale of a lot of our time trying to fix things up for Neal.

When Seth Irwin "goes to town," he chooses a big town for the occasion; he was the busiest man at the banquet. Versatile chap, too; he rendered table service as long as the cocktail supply lasted, helped to serve the dinner plates and to pick up the empties, besides leading the singing and the cheering. It's been a long time since we have seen him in action, but he is the same old Seth.

Due to something or other, probably an overplus of cocktail *hour*, many dinner guests became dis-



oriented—thought they were downtown in the Anthony Chatterbox. Just why folks *have* to make a lot of conversation when such a fine group of singers as the Cathedral Choir is putting on their stuff is quite beyond our ken!

One of the regrets commonly expressed during the convention was that Dr. William Niles Wishard, long since known as "The Grand Old Man of Indiana Medicine," was unable to be with us. Dr. Wishard celebrated his eighty-eighth birthday during the convention and a group of his long-time friends had hoped to have him there for a proper recognition of that important event. He recently had expressed the wish that he might be able to get to Fort Wayne for the annual convention.

We finally met up with Sam and Katy, meaning, of course, the Shelbyville Kennedys, no doubt the most medical convention-going couple in the country. Just back from two weeks in New York, they already are planning their New York Central System convention in Chicago next month. We don't know how they manage it, but even after all these years they have every appearance of a couple off on their honeymoon; hope we may meet them for years to come.

Walter Carver, who just a year ago was a pretty sick man, was on the job as usual, taking care of the credentials of the members of the House of Delegates.

A little group of Lake County-ites gathered at the Berghoff Gardens Tuesday night for a bit of refreshment and sustenance. Tom Oberlin, well known in his home community as an arch play-boy on such occasions, was at his best. He included all the surrounding tables in his merriment, even attracting the attention of the head waiter who later came over and whispered a "good story" into Tom's ear. As that dining room official walked away he remarked to Neal Davis, "I sure hope that guy isn't a preacher!"

George Bond, watching the antics of the alleged wrestlers, at the stag smoker, could not help reverting to type. His whole interest and concern during this part of the program was for the effect of the exercise upon the hearts of the contestants.

Cliff Jones of Whiting and Ed Van Buskirk, the president-chap, held a little reunion after the first House of Delegates meeting. Both of these boys hail from Monroeville and bystanders were regaled with the reminiscences exchanged during the little confab.

Maynard Austin did a very poor job of time keeping during the grunt and groan show at the

stag smoker. He even refused to tell one of his pet stories when he was marched up to the "mike" for that purpose. Probably he was too much interested in trying to devise ways and means of circulating his *Asbestos Archives* now that he is afraid to use the Jim Farley mails for that purpose. Incidentally, this chap promised to have a *real* feather in his hat at Fort Wayne convention time. We looked—saw nothing to rave about—'twas just another feather.

Two hitherto unknown guests were introduced at the first House session, Paul Waddell, of South Bend, and Rollen Waterson, of Whiting. These young men are the only two full-time county medical society secretaries in the state. Both these chaps made a very creditable showing, their brief responses indicating that they know what their jobs mean and intend doing something about it. Waterson is an old timer, having been on the job for some ten months, while Waddell has a service record of about three months. We predict that ere another year rolls around we will know both of these lads much better and that they will be making great big marks in Indiana medical history.

Perry Row, probably the most versatile user of expletives extant, had his "My Gosh" going at full speed during the convention. When Perry resorts to this choice term you may well know that he is more than commonly impressed.

Fortville Ferrell was up bright and early, Wednesday morning, button holing the early risers, seeking opinions on matters relative to business referred to his committee. Ferrell takes these committee assignments very seriously and studies the various problems coming before him with due care.

Walter Kelly is very serious in his declaration that he does not favor non-profit hospital insurance, sickness insurance, etc. Walter feels that the insurance business should be left to the insurance companies.

President-elect Karl Ruddell was in no wise perturbed at his first appearance before the House of Delegates. He said what he had to say in short order, and what he had to say was very much to the point. Karl is all set to give the best he has to the interests of the best State Medical Association in the country.

The passing of Walter McFadden of Shelbyville removes from our registration lists a name that has consistently been enrolled thereon. "Wallie," as he was affectionately known to hundreds of our members, rarely missed a state convention and he commonly was named to some important reference committee, for his sound advice was highly regarded.

Numerous pre-convention dinner parties were held on Monday night, most of them at the Berghoff. The Ernest Rupels had a down-front table, as did a party headed by Minor Miller, of Evansville. Chet Stayton and Colonel Hilldrup, of Fort Harrison, staged it, but seemed to be enjoying themselves very much. Chet was a bit worried about the Monday night rain, said he feared it would interfere with his golf game the following morning. Further averred that he did not want to win *the* cup but sure did want some prize or another. Then went into a rather extensive story about a "golf umbrella" which he says he won some place or other.

It was at the first meeting of the House of Delegates. Something or other of great import was before that body. A young chap arose, seemingly assured of himself, who told that body just what he thought of the current discussion. He gave his name as Bob Hedgecock, hailing from Frankfort. Having lived there for some years, we were interested in the ancestry of this young man, thinking that he must be a son of "O. P."—a man who was generally regarded as being the smartest G.O.P. politician in those parts. Later we learned that our surmise was correct and we spent some pleasant moments talking about the old times back in Clinton county.

Sights about Fort Wayne: A horse-drawn ice wagon, a single horse at that. Sentimentally reminded us of the first horse we ever drove, back in Wild Cat. "Old Kit"—the finest piece of horse flesh we have ever known. We were so strongly impressed with this sight that we galloped down from our room in order that we might strike up an acquaintance with this horse that took us back to Carroll county. Vainly we looked for a carrot to offer as a tidbit as we were wont to do back in "them days."

Herb Senseny, always looking for trouble and if he cannot find it conveniently willing to start something, pounced upon the lowly editor with the announcement that this was to be the *one* meeting where medical editors were not allowed. However, we managed to stick out the session, chiefly by dint of keeping out of the way of this belligerent cuss.

Pipe-smoking physicians seem to be on the increase, a thing we have noted during the last few years. The Philip Morris cigarette booth came along with an innovation, this year; in addition to handing out the two-cigarette carton of their product, they opened two large cans of their smoking tobaccos and made it known that this was complimentary to all registrants. Funny how such news goes the rounds in a hurry; in a trice after the cans had been opened there was a line

of physicians formed, both to the right and to the left, awaiting their turns for free tobacco. Yes, we'll confess that we made numerous trips up to that end of the exhibit line.

Jess Bowers was one of the busiest men in Fort Wayne at convention time. He was serving as chairman of the registration committee and as such was caretaker for the large number of girls engaged in that work. They, as usual, were stationed at the extreme end of the commercial exhibit line. 'Way off at the other end of the building the hobby exhibit was placed (more about that later). Bowers had there a wonderful display of his prowess as a hunter, his collection including many almost priceless skins and heads. He wanted to attend to his registration duties, yet keep a weather eye open lest some visitor appropriate a bear or two, so he was just about fagged out running from one end of the building to another. To conserve his energy and vitality we offered to go out and rent one of these new-fangled gasoline scooters, but he declined our proffer. He probably will lose a bit of that "age spread" we noted about his waist line.

Within less than thirty days after the Indianapolis convention, last year, the Fort Wayne group had plans for the 1939 session well in hand. Only minor details remained to be ironed out and the various local committees had arranged their various assignments. Other societies who may be accepted as hosts for our annual conventions would do well to emulate the Fort Wayners, since it is a comfortable feeling to come to these annual meetings and find everything so ship-shape.

Just prior to the annual dinner on Wednesday night, A.M.A. president-elect, Nathan Van Etten, was heard over a nation-wide hookup, speaking from a Fort Wayne station. A pretty compliment was paid Dr. Van Etten by the Fort Wayne group when at the dinner, later in the evening, he was presented with a recording of his own speech, an event heretofore unknown in Indiana medical circles.

The Fort Wayne boys, not content with a single innovation for our annual convention, put on three: the archery contest, the hobby show, and the Hall of Health. Each of these will receive special comment elsewhere in THE JOURNAL.

Among the earliest arrivals and the first man we met on Monday afternoon was George Daniels from down Marion-way. George never forgets to state that he wants to get in early, that he may miss none of the show.

We made our reservation at the Keenan along last January, in order to be assured of a place



to lay our weary head, once night came. As we were being escorted to our quarters the thought came to us, "How fortunate, indeed, is he who has an advance reservation; walk right into the room and make ready for a pleasant stay." But once in the room we were disillusioned. Furniture was piled here and there, beds were not made up and in general the place was in confusion. Inquiry elicited the information that there had been a wedding in the room over the week-end, which explanation was quite satisfactory to us when we recalled such an event in our own life, many, many years back.

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It appeared to us that the Fort Wayne medical profession had closed their offices during convention days. Arriving Monday noon, we met these chaps everywhere until late in the night. Every man Jack of them seemed to have but one idea, that of making convention guests feel that the city was theirs—and they did that thing.

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President Van Buskirk, for a long time quite concerned over having the convention in his home town and wanting to have everything in apple pie order, let down a bit on Monday night. We found him cuddled in a big chair in a down-town spot, partaking of that refreshment that enlivens but does not inebriate one. "Van," well satisfied with all that had been accomplished during the day, said he was going home for the first real rest he had had in many nights.

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The Blond Senator suffered a series of disappointments during convention week, among them being the mournful memory of the "gangster green" sweater he was wont to wear, the while he was getting things set up for the big show. This was a body blow to Tommy, but the worst was yet to come, and all because occasion did not arise for him to present an act he had perfected at St. Louis where he won signal honors as the world's champeen marathon dancer. In his palmiest days, Vernon Castle never was able to devise so many terpsichorean stunts as were performed by our Tommy in St. Louis. It also is said that Fred Astaire has forbidden his manager to make any engagements in that city for the period of a year, stating that he wanted to be assured that the natives had forgotten the exhibition presented by our secretary! 'Tis also said that our boy, so keen was he to win a wager based on the conquest of wimmen, veritably tore feminine dancers from the arms of their escorts so that his score might be increased. We regret that the story reached our desk so late, else we would have made a valiant effort to have provided the act as the high spot of the banquet session.

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The convention hall most admirably lent itself to our purposes. With the registration desk at one

end of the commercial exhibit line and the hobby exhibit at the other, all convention visitors necessarily had to pass all the exhibits. "Pass," however, is hardly the correct word, since these exhibits were so cleverly arranged and the exhibit material of such interest that it took quite some time to make the rounds.

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Every year we use the same expression—"We don't see how they do it!" Referring, of course, to the "battery" of gals in charge of registration. Each year we feel that "tops" has been reached and each succeeding convention finds us to have made a bum guess. Maybe it is the change in the way they wear their hair! This year, due to the one mix-up we have been able to charge to the Fort Wayne medics, it seems that several local members wanted their favorite to be assigned to the registration department, so that on Tuesday morning there were *ten* girls lined up for the five jobs. What to do? Well, the committee in charge got out of it, choosing both blondes and that other type; the others were assigned to various duties and all was well.

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Among the exhibits in the Hall of Health that attracted our particular attention were those presented by the State Board of Health, the Fort Wayne Hospital Council, the Northeast District of the State Nurses Association, the Women's Field Army, the State Highway Police Department, the Allen County Tuberculosis Association, the local chapter of the American Red Cross, and the Indiana Service Corporation. All of these were outstanding in matters pertaining to health interest, the highway police exhibit being particularly interesting because of the graphic manner in which accident prevention was stressed.

While we do not have the figures in regard to attendance, we judged from the two visits made to the exhibit that such a showing is well received by the public and that it might be well for other entertaining societies to consider such an exhibit.

The committee in charge of this phase of convention week is to be congratulated for the success of the venture.

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One of the things we enjoy most at convention time is getting on the scene early so that we may see the "stage hands" operate under the direction of our genial Tommy. To one not used to such a picture, the convention hall would appear to be little short of chaos but once the starting bell rings, everything is in place and convention visitors are enabled to see the whole show in good order. We still mourn the passing of the gangster green sweater which for so many years did yeoman scervice for our blond secretary, but it has been missing these past two years. Tommy has substituted a hat for the famous sweater and once this old-time headgear is set at just the proper tilt,

he can give orders right and left and carry on conversations with four different persons at the same time.

One of the most interesting and unique luncheons during the meeting was that held on Wednesday noon, given the alumnae and students of the old Fort Wayne Medical College. Thirty-five members were present. The luncheon was unique because of the fact that it took place in the old Medical College building now occupied by the Fort Wayne Turner Athletic Association. Tables were arranged in the old dissecting room properly decorated for the occasion.

Picture the memories brought back to thirty-five members associated with this school thirty-five or more years ago. Reminiscing old times were the subjects of most of the speakers. The old college was closed thirty-four years ago at which time it became affiliated with the Indiana Medical College.

Tribute was paid to Dr. C. H. English, the oldest graduate, Class of 1884, and to Dr. E. M. VanBuskirk, 1902, president of the State Association.

Wednesday night, as we wended our way toward Valencia Gardens for the annual dinner, the thought came to us that so far we had heard no "barber shop" choristers such as commonly infest all conventions; we really had missed the high notes of the ailing tenors and the raucous sounds emitted by amateur basses. Got down to the dinner, however, and found a small but loud and good swing band in action and in a moment they had the crowd singing the "old ones," and they didn't miss many of them. Sounded rather good, too, though it did seem that we detected several Manhattan and Martini notes in the general din.

A tragic note was injected into the proceedings of the convention when, at the Wednesday morning general meeting, Dr. Bayard G. Keeney of Shelbyville collapsed from a cerebral hemorrhage and died immediately. From members of his family we learned that Dr. Keeney was feeling unusually well as he left his hotel for the convention hall. Dr. Arnold Liebermann of Gary, who was sitting near Dr. Keeney, noted that his head suddenly drooped and he then fell to the floor. Despite immediate attempts to revive him, he had passed on. His son, Dr. Edmund L. Keeney of Baltimore, who was to have been a guest speaker at the Thursday morning general session, was in the hall at the time, as was Mrs. Keeney. The sudden passing of Dr. Keeney silenced convention proceedings for some time as almost every one in attendance knew the doctor intimately. Few Indiana men were more faithful in attendance upon our annual meetings than was Dr. Keeney. At the time of his death he was chairman of the medical section, and as such he had much to do with the arrangement of the program which was scheduled to begin shortly after his death.

## RESULTS IN SPORTS EVENTS

### GOLF

Although the day was unpleasant—raining very hard at intervals—ninety-two contestants played on the course.

The Rhamy-VanBuskirk trophy was won by Dr. Robert Acre of Evansville, who had a low gross of 80. (Dr. Acre won the Armstrong Cup in 1932.) Doctors Burkhardt and Knode tied for second low gross with scores of 84. Other prizes given for low gross went to Doctors C. M. Sennett, Cleon Nafe, J. T. Cooney, and W. E. Pennington.

Low net prizes were won by the following doctors: C. E. Cook, W. M. Dugan, William Thompson, and G. K. Balsbaugh.

Those winning prizes in the blind handicap were Doctors C. Titus, E. C. Fish, L. A. Wilson, and Dr. Bailey.

Prize for the longest drive on hole No. 1 was won by Dr. G. K. Balsbaugh; second prize by Dr. P. O. Long. Prize for the most birdies was won by Dr. W. S. Robertson. Prize for the least number of putts was won by Dr. R. P. Schuler; second prize by Dr. D. R. Benninghoff. Many smaller prizes were won by other players. In all, forty prizes were distributed.

### ARCHERY

Dr. E. T. Gaddy of Indianapolis won first prize and Dr. Neil Davis of Lowell won second prize in the archery contest. They were the only two participating, but considering the weather and the fact that this was the first such tournament, the chairman for this event was satisfied.

An American round was shot. Dr. Gaddy made a score of 143, which is the present state record (for the Indiana State Medical Association archers) since this was the initial tournament.

### SKEET AND TRAP SHOOT

Twenty-five participated in the events.

The Orange County Medical Society Trophy, 100 targets at 16-yard trap, was recaptured by Dr. C. M. Donahue, Carmel, Indiana. Dr. C. W. Cullnane of Evansville, Indiana, had the cup for the year previous.

The following were the winners:

#### Trap

16 yard rise:

Class A—C. M. Donahue, Carmel, Indiana.

Class B—John Lansford, Redkey, Indiana.

Class C—N. B. Combs, Mulberry, Indiana.

16 yard handicap:

John Lansford, Redkey, Indiana.

#### Skeet

All bore:

Class A—C. W. Cullnane, Evansville, Indiana.

Class B—E. C. McDonald, Indianapolis, Indiana.

Class C—W. F. Englebert, Ft. Wayne, Indiana.

Small bore:

Class A—C. W. Cullnane, Evansville, Indiana.

Class B—W. F. Englebert, Ft. Wayne, Indiana.

Class C—E. C. McDonald, Indianapolis, Indiana.



## HIGH-LIGHT ACTIONS OF THE HOUSE OF DELEGATES AND COUNCIL AT FORT WAYNE SESSION

Because so many actions were taken during the Fort Wayne session by the House of Delegates and the Council of the Indiana State Medical Association affecting each individual physician, as well as each county medical society, and because so few busy doctors have either the time or desire to read the detailed minutes which appear in the back of *THE JOURNAL*, an attempt is here made to list briefly and give a few words of explanation in regard to some of the more important and significant actions of the governing bodies of the association taken at the ninetieth annual session last month.

### ACTIONS OF HOUSE OF DELEGATES

#### Changes in Constitution

(1) *Purpose of association.* Reference committee approved suggestion of the Executive Committee that Article II of the state association Constitution be amended by striking out the words "to guard and foster the material interests of its members and". This will come up for final vote at the 1940 session at French Lick.

(2) *Eligibility of delegates for presidency.* At the Indianapolis session in 1938 Dr. Ira Perry offered the following amendment to the Constitution:

"Be It Resolved That Section 3 of Article IX of the Constitution be amended as follows:

"By striking out the following words: 'No delegate shall be eligible to any office named in the preceding section, except that of councilor.'"

The effect of this change in the Constitution would be to make any member of the House of Delegates eligible for the presidency. This should have been brought up for consideration at the 1939 session at Fort Wayne but through a mistake it was not printed in *THE JOURNAL* twice during the year and hence it could not be considered. It will be considered therefore in 1940.

#### Changes in By-Laws

(1) *Joint county societies.* Executive Committee recommended that the By-Laws should be changed so that joint county societies should have a delegate representing each society. This recommendation was made as several counties desired to form joint societies but did not unite because they would lose their voice in the House of Delegates by such union. Recommendation adopted by House of Delegates that this matter be held over one year and studied, and voted upon next year.

(2) *Citizenship and licensing of physicians.* The Marion county delegation presented a resolution that "physicians and nurses employed for public work be required to have a license to practice their profession in Indiana and be required to

be a citizen of the United States." This resolution also provided that "the provision in the Constitution and By-Laws of the Indiana State Medical Association requiring that members of component county societies be legally licensed to practice medicine be construed to mean legally licensed to practice medicine in the State of Indiana."

That part of the resolution in regard to the citizenship requirement of physicians and nurses was indefinitely postponed because of the possible conflict with the Constitution of the United States. The second part of the resolution was adopted. This will take care of the complaint of the American Medical Association that some physicians are members of their local county medical societies and hence the state medical and the American Medical associations who are not licensed to practice in Indiana.

#### Increase in Dues

An increase in the dues of \$3.00, making them \$10.00 a year was passed by the House of Delegates and approved by the Council. This increase will be effective starting January 1, 1940. This increase was voted to provide additional funds for the following purposes:

- (1) Pay actual expenses of all state committees. (Only a few specified committees had expenses paid in the past.)
- (2) Provide extra help for the headquarters office.
- (3) Pay all expenses of the annual session. (In the past the local society paid all entertainment expenses, receiving only \$500.00 from the state association.)
- (4) Help finance an extended graduate educational program in line with suggestions made by Dr. Herman Baker of Evansville in his presidential address last year.

#### Payment of Committeemen's Expenses

Upon the recommendation of the Executive Committee and the approval of the Council, the House of Delegates voted to pay the actual expenses of all members of state committees attending meetings having to do with official association business. This rule was made retroactive to cover the year 1939.

#### Non-Profit Hospitalization Plans Reapproved

At the Indianapolis session last year the House of Delegates approved group hospital insurance or service plans. The House of Delegates reaffirmed and clarified its position in regard to such plans by adopting the recommendation that the Permanent Study Committee on Health Insurance of the state association "continue this study, having in view the probable legislation in the next session of the legislature in 1941" and approving the report of the Executive Committee which stated that "it would be much better to wait until the next session of the legislature and make sure that

a correct non-profit enabling act is upon the statute books rather than have some 'make-shift' plan adopted which would prove in the long run to be unsound and unwise."

The House also approved a supplementary report of the Executive Committee which asked for "re-affirmation of our endorsement of non-profit hospital insurance plans when properly safeguarded," and the suggestion of the reference committee that "this endorsement should include non-profit medical care plans giving benefits in the form of cash indemnity and not medical service, such plans to be in harmony with the ten points adopted at the Cleveland meeting of the American Medical Association, and to conform to the laws of the State of Indiana."

#### **Annual Registration of All Physicians**

More time was spent in discussing this question than any other that came before the House of Delegates. The resolution called for an annual registration fee of \$2.00 to be paid by all licentiates to the State Board of Medical Registration and Examination in order that the board may have funds to aid in enforcing the medical practice act. After a lengthy discussion the House adopted the report of the Reference Committee on Public Policy and Legislation which recommended that "the law for the registration of physicians be endorsed but that action be deferred for further investigation of the problems involved." This probably will come up for further consideration next year at the 1940 annual session of the association.

#### **Change in University Hospital Law**

House of Delegates approved resolution presented by the Bartholomew County Medical Society favoring an amendment to the so-called University hospitalization law "permitting the court to commit patients to any hospital that appears best for those concerned." Under this resolution judges would have the right to send patients to local hospitals. (The attorney for the Township Trustees Association already has protested against this resolution as under the present law the township trustees are the only ones who can commit patients to local hospitals.)

#### **Supplying Complete Medical Bills**

Lawrence County Medical Society presented a resolution requiring that each county society be sent "the entire content of each bill relative to medical practice before the legislature." The Reference Committee on Public Policy and Legislation to which this resolution was referred recommended that "This resolution should be rejected, the reason being that the state legislative committee has been sending to county societies these reports for some time." Although the delegate from Lawrence county pointed out that the complete bills were not always sent, which was the point of the resolution, the House adopted the reference committee's report rejecting the resolution.

#### **Crippled Children**

Upon the suggestion of the Liaison Committee of the Indiana State Medical Association with the Indiana Crippled Children's Bureau the House recommended that the county medical societies extend to the Division of Services for Crippled Children invitations to conduct diagnostic consultation services in the various counties. Recommendation also made that each county medical society appoint an advisory committee "to co-operate with county departments of public welfare in the matter of making recommendations as to whether individuals applying for necessary services shall be treated at public cost." Suggestion made that "such committees may offer also the same service to judges empowered to commit children to local public hospitals or to the I. U. hospitals."

House of Delegates also approved an added suggestion made by the reference committee that a committee from each county medical society be appointed to work in conjunction with the state committee.

#### **Neon Signs**

House of Delegates approved the report of the Publicity Bureau which contains the following statement concerning neon signs:

"A great deal depends upon the size, the location, and the prominence of such signs. A sign does not have to be a neon sign to be in bad taste. Lettering on an office window or a door which is over-conspicuous in size or in coloring is bad taste and hence unethical. If all physicians in a town use a sign of the same size it would not be unethical, but if one physician used a neon sign and the others did not use neon signs, that would give undue prominence to one physician's name and hence the Bureau feels that the use of a neon sign in this instance would be a breach of local custom and therefore unethical."

#### **Individually Conducted Postgraduate Course**

House of Delegates approved the report of the Bureau of Publicity which stated that in its opinion "postgraduate instructional work should be carried on not under the sponsorship of individual physicians but under the sponsorship of authorized local medical societies and organizations or of component branches or committees of the American Medical Association or the Indiana State Medical Association, or by affiliated bodies, or by the Indiana University School of Medicine."

#### **Major Surgery Without Special Training**

Also contained in the Bureau of Publicity report which was approved by the House was the statement in answer to the question, "What does a society do about doctors trying to do major surgery without any training whatsoever?" The opinion of the Bureau, which was approved by the House, follows:

"When a physician who has had no training in surgery attempts to do any surgery, said physician should be brought before the board of censors of the local society and warned of the dangers involved. If he persists, the society should determine what action



to take relative to his continued membership in the society.

"Such matters should be called to the attention of the official board of the hospital where said operations are performed and such communications should convey to the hospital board the disapproval of the local medical society.

"If the results of the above efforts are not satisfactory, attention concerning this matter should be called to the councilor of the district."

#### Local Committees

The House of Delegates approved the reports of the Cancer Control, Syphilis, Anti-Tuberculosis, Conservation of Vision and Pneumonia committees, each of which recommended appointment of active committees by each county society to lead the work in each county and cooperate with the state committees.

#### Anti-Tuberculosis Recommendations

Recommendation of this committee which was approved by the House of Delegates calls for each county medical society to have at least one tuberculosis program a year.

#### Pneumonia Committee Recommendations

The report of this committee was approved and it recommended that "educational work for doctors on the management of pneumonia be undertaken in all parts of the state" and that "when-ever possible all cases of pneumonia should be treated in hospitals."

#### Recommendations of Syphilis Control Committee

Recommendations of this committee approved by the House were:

- (1) That the laboratory of the State Board of Health should refuse to perform blood tests for industry.
- (2) That it is unethical conduct on the part of any physician to send blood specimens to the state laboratory for examination from any patient or industry that can afford to pay.

#### Cancer Control Recommendations

The state committee's report which was approved by the House recommended that local committees be appointed by each county medical society "to assume leadership in cancer control education" and that "lay interest should be broadened in reducing the high mortality rate" so that "an educational program that extends into every home in the county" may be established.

#### Preparedness Resolution

The House of Delegates unanimously adopted a resolution, sponsored by the Bartholomew County Medical Society, calling for the creation of a committee of the state association to act in liaison with the proper military and civil authorities and veterans' organizations to prepare a detailed program for medical cooperation and preparedness in event of M-(mobilization) day. Delegates to the American Medical Association were instructed

to present this resolution at the annual session of the A. M. A. in New York next June.

#### Conservation of Vision Resolutions

(1) *Ophthalmia Neonatorum Prevention*. Following the recommendation of the state association committee on the Conservation of Vision, resolution was adopted calling for legislation strengthening the present ophthalmia neonatorum law and authorizing the delegates from Indiana to the A. M. A. to present a resolution at the New York session next June embodying the Indiana resolution.

(2) *Trachoma Resolution*. Resolution from state committee adopted by House of Delegates calling for "an active campaign against this communicable disease (trachoma)."

(3) *Continuity of Committee on Conservation of Vision*. Resolution presented by state committee and adopted providing for the creation of a committee of five members, one to be appointed each year after the first year by the association president and recommending that he receive suggestions in regard to these appointments from the Section on Ophthalmology and Otolaryngology and the Indiana Academy of Ophthalmology and Otolaryngology.

#### Postgraduate Instruction

House of Delegates adopted the report of the Committee on Medical Education and Hospitals which recommended "that the present method of experimentation of various types of postgraduate instruction be continued for another year or two in the hope of finding a method or methods that will be practical for the entire state."

#### Committee on Industrial Health

As the field of activities of the "Committee on Occupational Diseases" is becoming enlarged the name of this committee was changed to the "Committee on Industrial Health" to conform to the terminology of the American Medical Association.

#### Reorganization of the State Board of Health

The legislative committee asked the House of Delegates to express its opinion in regard to the proposal made at the last session of the legislature to reorganize the State Board of Health, which "would divorce some of the control of this department from politics." The Reference Committee on Public Policy and Legislation recommended "the present law in regard to the State Board of Health," and this recommendation was adopted by the House of Delegates.

#### Investigation of Irregulars

The House approved a recommendation that such investigation be made. House also recommended that each physician read the entire report of the state Committee to Study Cultists and Irregular Practitioners which appeared in the September issue of THE JOURNAL on pages 529 and 530.

### Work of Historian

The House of Delegates approved proposal that the historian, Dr. James B. Maple, "be given opportunity to bring Dr. Kemper's medical history up-to-date."

### ACTIONS TAKEN BY COUNCIL

- (1) **Raise in Dues.** Approved action of House of Delegates raising dues from \$7.00 to \$10.00 a year.
- (2) **\$1,000 to Fort Wayne Society.** Voted \$1,000 to Fort Wayne Medical Society to cover entertainment and rental of Shrine Theater for the convention.
- (3) **Health and Accident Insurance.** Took under advisement suggestion that state association organize company to carry own health and accident insurance for its members.
- (4) **JOURNAL Printing Contract.** Renewed THE JOURNAL printing contract with C. E. Pauley and Company of Indianapolis.
- (5) **Elections.** Re-elected Dr. E. M. Shanklin editor of THE JOURNAL for coming year and named Dr. Edmund L. Van Buskirk of Lafayette and Dr. James F. Balch of Indianapolis on editorial board.

(6) **Social Work Program.** Approved request from the State Council on Social Work that the state association supply two days of the program for the conference to be held November 1 to 4, in Indianapolis.

(7) **Traveling Expenses of Committees.** Approved suggestions that "traveling expenses of all committees for special call meetings be paid and that action be made retroactive one year."

(8) **Payment of Future Convention Expenses.** Approved proposal whereby state association should completely finance annual meetings in the future and that local societies who are hosts to the meeting be relieved of any part of this obligation by preparing and submitting a budget of its expenses at annual midwinter meeting of Council previous to annual session of association.

(9) **Distribution of WPA Cases.** Discussed ruling regarding distribution of WPA cases which is a national and not a state rule.

(10) **Midwinter Meeting January 7, 1940.** Council set date of next meeting for Sunday, January 7, 1940.

## THE HALL OF HEALTH

R. L. HANE, M.D.

The ninetieth annual meeting of the Indiana State Medical Association in Fort Wayne produced several innovations. One was the sponsoring of a public exhibit so that the people of north-eastern Indiana might feel a more personal interest in our program. The idea of a public exhibit is not a new one, but to augment an annual meet-

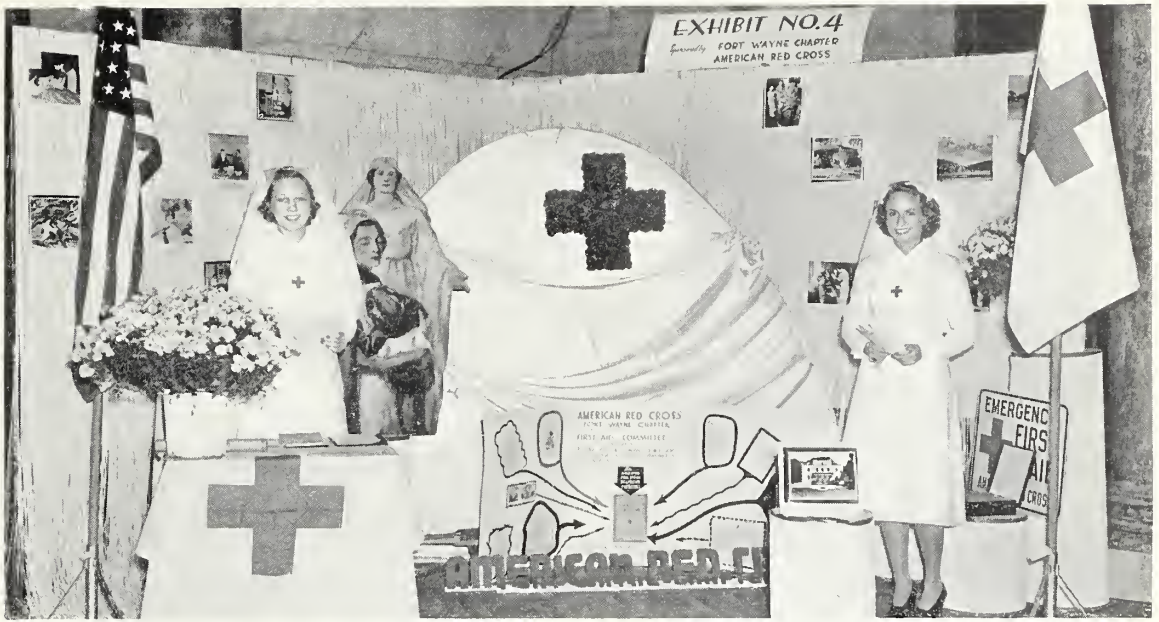
ing of our organization with a large scale exhibit of general interest to the public is a departure from precedent. That this attempt at bridging the gap between physician and layman was appreciated is evidenced by the attendance figure conservatively estimated at 20,000 individuals.

It was the idea of the committee in charge to



Some of the attendants at the Hall of Health.





One of the exhibits in the Hall of Health.

utilize the publicity attendant to an annual meeting of the Indiana State Medical Association not only to further the cause of public education but also to focus the attention of the public on the fact that organized medicine has genuine concern for the health of the lay public. It has become increasingly evident that our patients and prospective patients have an almost insatiable desire for information on health preservation and the progress of science in making this possible. Any perusal of popular magazines reveals many articles along this line. This represents a conscious effort of editors to provide for the reader's desire. It would seem that organized medicine should assume the role of informer so that the public may be assured as to the source of the information. This view was shared by the joint sponsors of the Hall of Health—The Indiana State Medical Association and the Fort Wayne Medical Society.

An admirable site for the exhibit was secured through the kind permission of the County Commissioners for use of the spacious first floor of the Allen County Court House, which is at the very hub of transportation and traffic in Fort Wayne. Special lighting and electrical connections were gratuitously supplied by the City Light and Power Works. Enthusiastic cooperation was given by the City and State Boards of Health, the Fort Wayne Police Department, the Red Cross, the Allen County Tuberculosis Association, the Women's Field Army for the Control of Cancer, the Isaac Knapp District Dental Society, The Fort Wayne Hospital Council, the Fort Wayne Drug Club, the Northeastern Indiana State Nurses' Association, the Committee on Conservation of Vision of the Indiana State Medical Association, the Fort Wayne Milk Council and the Indiana Service Cor-

poration. Of great value was the help of various pharmaceutical houses and appliance manufacturers. All contacts of the committee showed a readiness to help in this project.

Publicity efforts met with the hearty cooperation of the local press and radio station. Fort Wayne newspapers carried special articles on the Hall of Health for a period of two weeks prior to the date of the meeting. Radio Station WOWO sponsored two broadcasts direct from the exhibit. Of great help in publicity efforts was the guidance of a skilled publicity man.

With the thought that a summary of the exhibits may be of help to those societies planning a similar project, the following is listed:

*Booth 1—Board of Health, City of Fort Wayne.* This exhibit showed the various procedures in community sanitation designed to protect the citizen.

*Booth 2—Committee on Conservation of Vision, Indiana State Medical Association.* This exhibit illustrated the program of organized medicine for the prevention of blindness.

*Booth 3—Police Department, City of Fort Wayne.* In this exhibit special emphasis was given to highway safety and the prevention of automobile casualties.

*Booth 4—Fort Wayne Chapter, American Red Cross.* This exhibit portrayed the service rendered by the Red Cross.

*Booth 5—Lederle Laboratories, Inc.* This was combined with next exhibit and showed the Vollmer Patch Test.

*Booth 6—Allen County Tuberculosis Association.* The importance of early diagnosis was shown and an apparatus exhibited depicting the difficulty of recognition of the tuberculous.

*Booth 7—Women's Field Army for the Control of Cancer.* Wax models of cancer were shown and methods of control illustrated.

*Booth 8—J. H. Emerson Co.* The modern iron lung was demonstrated.

*Booth 9—General Electric Corporation.* By means of transparencies modern electrical therapeutic apparatus was shown.

*Booth 10—Indiana State Board of Health.* An exhibit was shown on the modern diagnosis and treatment of pneumonia.

*Booth 11—Isaac Knapp District Dental Society.* This exhibit showed the development of the teeth and jaw.

*Booth 12—Petrolagar Laboratories.* "The Doctor," a famous painting loaned through the kindness of the above company.

*Booth 13—Fort Wayne Hospital Council.* Literature and information was given concerning the services of Fort Wayne Hospitals.

*Booth 14—Fort Wayne Drug Club.* This exhibit showed the modern pharmacy department with its apparatus for compounding a prescription.

*Booth 15—Becton, Dickinson Company.* The glass blowing demonstration and manufacture of a clinical thermometer.

*Booth 16—City Light and Power Company.* In this exhibit various types of illumination were demonstrated.

*Booth 17—Indiana Service Corporation.* Here were demonstrated the various appliances used by the electrical workman to avoid hot wires.

*Booth 18—Northeastern District, Indiana State Nurses' Association.* By the use of costumed dolls a century of progress in nursing was demonstrated.

*Booth 19—S. H. Camp Company.* This exhibit was the glass replica of the Transparent Woman.

*Booth 20—Fort Wayne Milk Council.* By means of posters and motion picture the use of pure milk was emphasized.

Through courtesy of the Indiana State Board of Health continuous movies on health topics were shown in the auditorium.

The reaction of the press to the Hall of Health can best be shown by the following editorial comment in the *Fort Wayne News-Sentinel* of Oct. 11, 1939:

#### PHYSICIANS TO BE COMMENDED

"The ninetieth state convention of the Indiana Medical Association, now in session in Fort Wayne, has commendably coincided with the medical profession's generally-observable trend away from mysterious hocus-pocus and toward frank instruction of the public concerning medical problems and medical advancement.

"The 'open house' exhibits in the Court House are particularly illustrative of the sensible 'streamlining' of methods practiced by modern practitioners of the healing arts. Nowadays, doctors take the lay public into their profession's confidence and give the lay public a general understanding of 'what it's all about.'

"These exhibits are highly and beneficially educational. They do not involve any improper disclosures. They do not detract in the least from the profession's highly-specialized skills or from the public's respect for those skills. On the contrary, they stimulate an improved and more realistic attitude on the part of the public—an attitude of appreciative interest in the general field wherein medical men are specially trained experts.

"By taking the hocus-pocus out of medicine, as it was formerly regarded by large numbers of laymen, physicians and surgeons are also removing much of the fear and folly and false modesty and superstition which once restrained many persons from seeking the medical service which they needed, and which accordingly sentenced many to needless and untimely tragedy.

"The *News-Sentinel* heartily congratulates all those physicians responsible for the splendid progressive program arranged as a means of enabling the community to share the benefits of the current gathering of medical men in Fort Wayne.

"Any such program cannot but have a long range benefit by discouraging those self-styled 'liberal' yawpers who, scorning all the incomparable advantages implicit in the ancient relationship between private physician and selective patient, would inflict upon the public the Communist curse called 'socialized medicine'."

## Under the Capitol Dome

#### MARIJUANA

Arrest of eight alleged marijuana peddlers in a three-week period during September and October was reported to Dr. Verne K. Harvey, secretary of the Indiana State Board of Health, by Gene Ryan, state narcotic inspector. Enforcement of the 1939 anti-marijuana law was placed in hands of the state health department by the General Assembly, and Dr. Harvey has worked out a program designed to educate the public concerning this dangerous drug and to rid the state of marijuana peddlers.

Cooperation of the local police departments and sheriffs' offices in the program was shown by the fact that all eight arrests were made by local agencies of Indiana State Police, Mr. Ryan said. The program is also carried out in cooperation with the Federal narcotic officials.

Two of the alleged peddlers were arrested at Richmond, two at Clinton, one at Evansville, and three in Lake county. Five of those arrested have received sentences, and the remaining three had agreed to enter pleas of guilty to charges of possession of marijuana. Four were given sentences



at the Indiana State Farm at Putnamville, and one at the Indiana Woman's Prison.

Mr. Ryan said that of the eight arrested, three were Mexicans, two were Negroes, one was a white woman, and two were white men.

Physicians throughout the state have given the utmost cooperation in the marijuana program.

Mr. Ryan said that investigations concerning the peddlers rounded up thus far show that they are indiscriminate in their sales of the dope, and have sold both to children of high school age and to adults.

#### GARNISHEE LAW

Constitutionality of the exemption provisions of the 1937 Garnishee law, which physicians have at times been forced to use to collect bills, is under consideration by the Indiana Supreme Court.

The appeal was brought to the state's highest court by an Indiana doctor. The lower trial court had ruled that the exemption provisions were in violation of the state's Constitution. Oral arguments were heard in the case recently, and the Supreme Court is expected to rule shortly. An earlier garnishee law was held unconstitutional by the court.

The 1937 law, upon which no Supreme Court decision previously had been issued, provides for an exemption of \$700 in real estate, \$600 in personal property, and \$15 in intangibles. The weekly wage exemption is \$15 a week, and the law provides that on the remainder, ninety per cent is not subject to levy. The result of wording of the law is that ten per cent of the weekly earnings of a debtor over the \$15 exemption is subject to levy by garnishment.

The garnishee law can be invoked only after a creditor has obtained a judgment, and the debtor has failed to satisfy that judgment.

#### DEATHS FROM FIRE

Although public attention has not been focused on fatalities and injuries in fires as it has been upon automobile deaths and injuries in recent years, the last fiscal year, which ended this summer, showed a substantial reduction in both deaths and injuries, according to Clem Smith, state fire marshal.

During the twelve-month period of the fiscal year there were 24 deaths, as compared with 43 in the preceding one-year period. There was not, however, as large a decrease in the number of injuries. A total of 137 persons were injured, while in the 1938 fiscal year there were 169. This was a reduction of only 32 in injuries which did not prove fatal.

The fire death record includes both fires and explosions, and the fire marshal's records do not set out the number of fatalities and injuries separately for these two causes.

The fire marshal's report, incidentally, revealed a big reduction in both the number and damage of fires in Indiana during the year as compared with the preceding year.

## Deaths



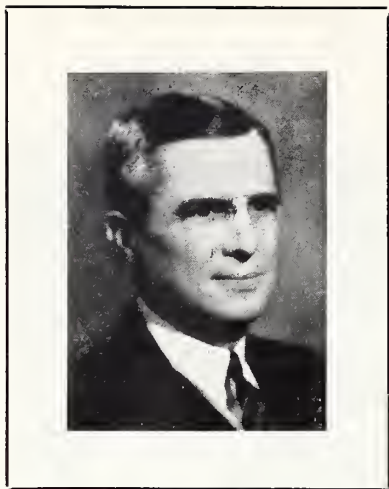
WALTER C. McFADDEN, M.D., of Shelbyville, age sixty years, died September thirtieth, after a brief illness of heart disease.

Dr. McFadden attended the Medical College of Indiana, Indianapolis, from which he graduated in 1902 and then did postgraduate work in Philadelphia. He assumed the practice of his father, Dr. William G. McFadden, in Shelbyville, and had practiced there since 1902.

Dr. McFadden was particularly interested in tuberculosis work and at the time of his death was first vice-president of the Indiana State Tuberculosis Association. He had served as superintendent of the Major Hospital in Shelbyville from 1927 to 1934, when he became secretary of the city board of health. He was a member of the Shelby County Tuberculosis Association, serving as its president in 1936, 1937, and 1938, and was a member of the Trudeau Society. He was also a member of the Shelby County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

Always active in medical organization work, Dr. McFadden was candidate for president of the Indiana State Medical Association a few years ago. He was widely known, respected, and loved in his community and throughout the state.

JOHN E. DOUGLAS, M.D., of Garrett, died September twenty-third, aged fifty-three years. Dr. Douglas had been associated with the Garrett Clinic for the past several years, specializing in roentgenology. Dr. Douglas graduated from the Chicago College of Medicine and Surgery in 1913 and was a member of the Dekalb County Medical Society, the Indiana State Medical Association and the American Medical Association.



BAYARD G. KEENEY, M.D., of Shelbyville, died October eleventh, while attending the annual convention of the Indiana State Medical Association in Fort Wayne. Dr. Keeney was sixty-three years old. He was to have served as chairman of the Section on Medicine of the State Association at the Wednesday afternoon session, and his son, Dr. Edmund L. Keeney, of Baltimore, was to be one of the guest speakers on the Thursday morning program.

Dr. Keeney was Shelby county health commissioner for six years and always was active in civic and medical society work. He was trained at the Medical College of Ohio, Cincinnati, from which he graduated in 1902, and then did postgraduate work in Europe. He was a member of the American College of Physicians, the Shelby County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

WILLIAM STEPHEN BECK, M.D., Indianapolis, retired physician and attorney, and former Marion county coroner, died October sixth, aged seventy-six years. Dr. Beck graduated from the Medical College of Indiana, Indianapolis, in 1888 and was appointed secretary of the Marion County Board of Health in 1890 and coroner in 1892. He graduated from Indiana Law School in 1907. Dr. Beck was a member of the Indianapolis (Marion County) Medical Society, the Indiana State Medical Association, and the American Medical Association.

HENRY M. MUGG, M.D., of Clarks Hill, died September seventeenth. Dr. Mugg was sixty-four years old. He graduated from the Medical College of Indiana, Indianapolis, in 1902, and was a member of the Tippecanoe County Medical Society, the Indiana State Medical Association, and the American Medical Association.

OLIVER S. OLSON, M.D., of Gary, died August twentieth, after a long illness. Dr. Olson was fifty-five years old. He was a World War veteran, and was a member of the Lake County Medical Society, the Indiana State Medical Association, and the American Medical Association. He graduated from the University of Illinois College of Medicine, Chicago, in 1912.

W. L. HAMMERSLEY, M.D., of Frankfort, died July eighteenth, aged seventy years. He graduated from the Baltimore Medical College in 1898. He had practiced in Frankfort since 1899.

HENRY E. PHARES, M.D., of Shelbyville, died June twenty-sixth, aged sixty-eight years; death followed a long illness. Dr. Phares graduated from the Hospital College of Medicine, Louisville, in 1897.

WILLIAM FRANK CLEVELAND, M.D., of Evansville, died October tenth, aged eighty-four, after a long illness. Dr. Cleveland was a native of Posey county and taught school at Owensville before he began the practice of medicine in Evansville. He graduated from the Kentucky School of Medicine, Louisville, in 1892, and located in Evansville soon thereafter. He served as city councilman in Evansville for twelve years and was elected state senator on the Democratic ticket from 1913 to 1915. Dr. Cleveland was a member of the Vanderburgh County Medical Society, an honorary member of the Indiana State Medical Association, and a member of the American Medical Association.

RUDOLPH DUENWEG, M.D., of Terre Haute, died September twenty-second, aged forty-nine years. Dr. Duenweg had practiced in Terre Haute since his graduation from the University of Louisville School of Medicine in 1913. He was a member of the Vigo County Medical Society, the Indiana State Medical Association, the American Medical Association, and a Fellow of the American College of Surgeons.

JOHN H. BARNFIELD, M.D., of Logansport, died September twenty-seventh, aged seventy-five years. Born in Pennsylvania, Dr. Barnfield received his medical training at Jefferson Medical College in Philadelphia from which he graduated in 1886. He came to Logansport in 1894 as medical examiner for the Pennsylvania railroad, which position he resigned a few years later and entered general practice. He was a member of the Cass County Medical Society, an honorary member of the Indiana State Medical Association, and a Fellow of the American Medical Association.



## News Notes and Personals

Dr. Robert A. Fargher has taken up the practice of medicine in LaPorte in offices formerly occupied by his uncle, the late Dr. James H. Fargher.

The Michiana Eye, Ear, Nose and Throat Club met September twenty-fifth, at the home of Dr. Ida Eby in Goshen. Case reports were presented.

The annual convention of the Indiana State Nurses' Association and the Indiana League of Nursing Education was held in Indianapolis, October 20 to 22, 1939.

Construction of a modern new building has been started by the three Inlow brothers of Shelbyville. They expect to occupy the new building by the first of the year.

Col. Henry C. Michie, Jr., has reported at Fort Benjamin Harrison to assume the duties of post surgeon, relieving Lieut. Col. Don G. Hildrup, who has been acting post surgeon since the departure of Col. H. B. McMurdo early last spring.

Dr. Morris Cohen, of Louisville, has taken over the office and practice of Dr. W. C. Sherwood, of Mitchell, who has retired from active practice.

Announcement has been made that Dr. E. F. Black, of Columbus, Ohio, is now associated with Dr. Arthur P. Rhamy in the practice of medicine in Wabash.

Dr. H. C. Rininger, formerly of New Harmony, has located in Chrisney, Indiana.

Miss Cecilia Collins, of Cleveland, Ohio, and Dr. Stephen C. Michaelis, of Fort Wayne, were married in Springfield, Ohio, September twenty-eighth.

Dr. and Mrs. Paul Bronson, of Terre Haute, have gone to New York City, where Dr. Bronson will spend three months studying at the New York Post Graduate Medical School.

Dr. Meier Bizer, who located recently in Williamsport, has opened an office in West Lebanon in the office lately occupied by Richard Stephenson.

Dr. Curtis Bland has been accepted by transfer from the Los Angeles County Medical Society into membership in the Vigo County Medical Society. Dr. Bland at one time practiced in Greensburg, Indiana. He is now practicing in Terre Haute.

Miss Kathryn Atkinson of Bloomington and Dr. Frederick Dettloff of Cloverdale were married September tenth at Greencastle in the First Christian Church, which both attended while students at DePauw.

Dr. Tracy M. O'Brien, of Clayton, has joined a partnership with his uncle, Dr. W. M. O'Brien, of Greencastle, taking the place which was held by the late Dr. C. B. O'Brien.

Miss Helen Sinish, of Evansville, and Dr. Herman A. Meyer, of Fort Wayne, were married in Fort Wayne, September sixteenth.

Dr. John I. Rinne, Jr., of Lapel, and Miss Madge Goldman, of Indianapolis, were married in Seymour, August thirty-first. Dr. Rinne has opened an office in the Citizens Bank Building in Anderson for the practice of obstetrics and gynecology.

H. N. Middleton, M.D., of Indianapolis, took postgraduate work this last summer at the University of London, following which he and Mrs. Middleton visited in Belgium, Switzerland, and France before returning to the United States in August.

Dr. E. A. King, of Fort Wayne, has moved his offices to 1105 South Harrison street, in the Indiana Hotel building. Dr. King formerly maintained offices at 232 West Wayne Street.

Dr. M. E. Clark, formerly of Advance, has entered practice in Coatesville. He takes the place of Dr. W. J. Fuson, who has moved from Coatesville to Greencastle.

M. W. Lyon, M.D., South Bend, has been elected editor-in-chief and Mr. Paul R. Waddell has been made managing editor of a monthly bulletin to be published by the St. Joseph County Medical Society.

County secretaries are urged to ask physicians in their communities to send any books or instruments about which they have authentic information to the Medical Museum, Indiana University School of Medicine, Indianapolis, Indiana. Old instruments, diplomas, admission cards to medical schools, and anything of that kind will be kept and cared for. Please address contributions or correspondence to Dr. William N. Wishard, Sr., Museum, Indiana University School of Medicine, Indianapolis, Indiana.

Dr. Frank W. Oliphant, of North Vernon, is building a combined office and residence at Seventh and Mulberry Streets. Dr. Oliphant expects to have the building ready for occupancy by the first of the year.

Dr. Flavia M. Doty of Gary suffered serious injuries in a bicycle accident, October ninth. She was believed to have suffered a fractured skull and circumstances indicated that she may have been the victim of a hit-and-run driver.

The sixty-second semi-annual meeting of the Eleventh Indiana Councilor District Medical Society was held October eighteenth at Marion with headquarters at the Spencer Hotel.

"Pay-Your-Doctor" week was inaugurated last year by California Bank in Los Angeles on a local basis but struck a responsive chord in other sections of the country with the result that the week of November 26 to December 2 of this year has been designated as national "Pay-Your-Doctor Week" with banks in all sections of the country sponsoring the movement.

According to newspaper announcement, President Hutchins of the University of Chicago has announced that Rush Medical College, founded in 1842, will be closed to undergraduate students in 1942 and a graduate medical school established in its place. The University has operated the college in affiliation with its own medical school since 1924, when it acquired the Rush Medical College building.

Dr. Ernest Rupel, of Indianapolis, was elected president of the north central branch of the American Urological Association at its sixteenth annual convention held in Indianapolis, September 25, 26, and 27. Dr. G. J. Thompson, of Rochester, Minnesota, was chosen vice-president, and Dr. W. J. Baker, of Chicago, was made secretary. Next year's convention will be held at Milwaukee. Approximately 150 physicians attended the convention which had representatives from Indiana, Michigan, Illinois, Wisconsin, Minnesota, Ohio, and Iowa. Drs. Roy Lee Smith, H. O. Mertz, John T. Day and Ernest Rupel were members of the local committee on arrangements.

Announcements of the first shipments of Government-owned radium which is being loaned to various hospitals has been made by the National Cancer Institute of the United States Public Health Service. Shipments were made of 250 milligrams to the Medical College of Virginia at Rich-

mond, 200 milligrams to the Albany Medical College at Albany, New York, and 50 milligrams to the Misericordia Hospital, Philadelphia. Dr. Thomas Parran states that the entire supply of radium owned by the National Cancer Institute, 9½ grams valued at \$200,000, has now been allotted and no more applications can be accepted until additional radium is available to the Cancer Institute. Eight grams are being loaned to hospitals which are properly equipped to treat cancer patients. The remaining 1½ grams will be used by the Cancer Institute for research and for the treatment at the cancer clinic of the Baltimore Marine Hospital of Service beneficiaries who are victims of the disease.

The Central Neuropsychiatric Association held a two-day convention in Indianapolis, October 6 and 7. Meetings were held at the Indiana University Medical Center and at Central State Hospital. All papers were presented by Indiana physicians. Speakers included Drs. Edgar F. Kiser, Murray DeArmond, Philip B. Reed, B. E. Ellis, Thurman B. Rice, E. V. Hahn, H. C. Ochsner, R. N. Harger, J. H. Warvel, L. D. Carter, John H. Greist, Jerry W. Carter, E. Rogers Smith, C. L. Williams, Exie Welsch, Alberta Jones, George C. Stevens, L. P. Harshman, K. K. Chen, Robert Glass, Paul Merrell, Jewett Reed, L. H. Gilman, Earl Mericle, C. B. Bohner, F. C. Reynolds, Irvine H. Page, Thomas P. Rogers, Max A. Bahr, Walter L. Bruetsch, J. S. Skobba, and C. P. Clark.

Dr. Frank R. Spencer, of Boulder, Colorado, was chosen president-elect of the American Academy of Ophthalmology and Otolaryngology at its annual meeting in Chicago, October eleventh. Other officers elected were Drs. Arthur H. Proetz, St. Louis, first vice-president; Joseph F. Duane, Peoria, Ill., second vice-president; Charles T. Porter, Boston, third vice-president; and William P. Wherry, Omaha, executive secretary.

The United States Public Health Service has prepared a folder entitled "Gonorrhea the Crippler" which is designed as a general information folder and as a case-holding device. It is the fifth unit in the venereal disease "dollar-a-hundred" series and is available from the Superintendent of Documents, Washington, D.C. Other folders in the series, available from the same source and at the same price of \$1 per hundred copies, are: (1) Syphilis—Its Cause, Its Spread, Its Cure; (2) Syphilis and Your Town; (3) You Can End This Sorrow; and (4) Syphilis on the Job. They are designed for public information and are particularly helpful for the physician to give to his patients.



The United States Civil Service Commission has announced open competitive examination for the position of Junior Graduate Nurse in the U. S. Public Health Service, and the Veterans' Administration. Because of the demand for qualified eligibles, applications will be received at the Commission's Washington office until further notice. Persons whose applications are accepted will be notified when to appear for an assembled written test. Additional information may be obtained from any first or second class post office, from any of the Commission's district offices, or from the Commission's central office at Washington, D.C.

The United States Civil Service Commission announces open competitive examinations for Senior Medical Officer (\$4,600 per year), Medical Officer (\$3,800 per year) and Associate Medical Officer (\$3,200 per year) for the Public Health Service, Veterans' Administration, Civil Aeronautics Authority, and Indian Service (Department of the Interior). Applications must be on file with the U. S. Civil Service Commission at Washington, D. C., not later than November 13, 1939. Necessary forms may be obtained from the Secretary, Board of United States Civil Service Examiners, at any first class post office or from the U. S. Civil Service Commission, Washington, D. C.

The winter meeting of the American Association for the Advancement of Science will be held in Columbus, Ohio, December 27, 1939, to January 2, 1940. Section N—Medicine and the Medical Sciences—will present a series of comprehensive symposia in the fields of hematology and cardiology. On the afternoon of December 27, the opening session will deal with the more recent and significant advances in hematology.

On the following mornings and afternoons, some phase of modern cardiology will be presented by leading authorities. Every physician is cordially invited to attend these sessions whether he is a fellow of the Association or not. Dr. Carl J. Wiggers, Western Reserve Medical School, Cleveland, is vice-president for Section N this year; Dr. C. A. Doan of Ohio State University is local chairman on arrangements for the medical meetings and has planned the hematologic program.

The Surgeon General of the Navy, Rear Admiral Ross T. McIntire, (Medical Corps), U. S. Navy, has announced that an examination for commission in the Medical Corps of the United States Navy and for appointment as intern in the Medical Corps of the United States Navy will be held at all naval hospitals in the United States and at the Naval Medical School, Washington, D. C., beginning November 6, 1939.

Candidates for admission must be between the ages of twenty-one and thirty-two years of age at the time of appointment and graduates of or senior medical students in class "A" medical schools only.

Those who are interested should write the Surgeon General, U. S. Navy, Bureau of Medicine and Surgery, Navy Department, Washington, D. C., for further information in regard to the examination and the procedure to be followed for them to appear before one of the examining boards.

#### SEVENTH DISTRICT MEDICAL SOCIETY

Martinsville—November 15, 1939

##### *Program*

- 9:00 a.m.—Golf tournament at Martinsville Country Club  
2:00 p.m.—Bridge for the ladies at Home Lawn Sanitarium

##### *Afternoon Meeting at Home Lawn Sanitarium*

- 2:00 p.m.—Business meeting  
2:15 p.m.—Carl Huber, M.D., Indianapolis  
Subject: "Toxemias of Pregnancy"  
3:00 p.m.—Maurice Blatt, M.D., Chief of Pediatrics Department, Cook County Hospital, Chicago  
Subject: "Care of the Premature and New-born Infant"  
3:45 p.m.—Robert M. Moore, M.D., Indianapolis  
Subject: "Some Helpful Clinical Observations in Angina Pectoris"  
4:30 p.m.—Karl R. Ruddell, M.D., Indianapolis  
Subject: "Acute Appendicitis"  
6:00 p.m.—Banquet at Home Lawn Sanitarium  
(Seventh District members will be banquet guests of Dr. R. H. Egbert at Home Lawn Sanitarium)  
Guest Speaker: M. Herbert Barker, M.D., Assistant Professor of Internal Medicine, Northwestern University Medical School, Chicago  
Subject: "Management of Pneumonia in Children and Adults"

Cards will be sent to all district members and reservations are requested.

#### INDIANA UNIVERSITY NEWS NOTES

More than 150 neuropsychiatrists from Indiana and other Midwest states attended the eighteenth annual convention of the Central Neuropsychiatric Association at the Hotel Severin in Indianapolis, October 6 and 7. Clinic and discussion sessions were held at the Indiana University Medical Center.

Dr. E. Rogers Smith and Dr. L. D. Carter were in charge of convention arrangements. Indiana doctors read all the papers at the sessions.

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Patients representing every county in Indiana and totaling 3,863 were admitted to the James Whitcomb Riley Hospital for Children during the year ending July 1, 1939, it was announced this month by Hugh McK. Landon, chairman of the joint executive committee representing the hospital and the University.

Admissions showed an increase of 202 patients over the year previous, according to the annual report made public by Mr. Landon and prepared by J. B. H. Martin, administrator of the Medical Center. The patients included 1,126 new cases, 1,110 emergency admissions, 1,506 re-admissions, and 32 institutional admissions, giving the hospital a daily average patient population during the year of 223.

"A gratifying phase of the hospital's development," said Mr. Landon in making public the report, "has been the gradual reduction from year to year of the number of patients awaiting admission, the number on July 1st being 1,407, of which 1,166 were those whose cases can be deferred until facilities become available. Improved and increased facilities made possible by generous individuals and organizations, increased efficiency on the part of the staff, and a faster turn-over of patients has made it possible to reduce delays in admissions."

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Reviewing progress at the Indiana University Medical Center during the last year, Dr. W. D. Gatch, dean of the university school of medicine, urged students to avoid war excitement and "go quietly about your business and become the best possible doctor you can."

Dean Gatch asserted the last 12 months had been one of the outstanding periods in the medical center's history.

"In this time of war and rumors of war and national uncertainty, this Center seems an oasis of ancient peace," Dr. Gatch said. "It would be folly, however, to ignore the fact that this peace may be disturbed by the national emergency of war. Until this happens it is best for every student to go quietly about his own business and try to become the best possible doctor he can. If war comes, I am sure this student body will be able to meet any requirements made of it."

With the Indiana State Board of Health building, newest structure on the campus, nearing completion, the medical school will be in a better position than ever to give first class and modern instruction in public health, Dr. Gatch said.

Unification in the near future of the operating service for the Robert W. Long and William H.

Coleman hospitals and the Clinical building and installation of a central sterilization room are included in other physical improvements to bring about increased efficiency and economy, the dean pointed out.

Acquisition of numerous pieces of laboratory equipment, including photographic apparatus, will facilitate study and care of patients and better instruction for students, he added.

"The growth of the medical center has caused a great need for additional living quarters for nurses, more space for cafeterias and dining rooms, more space for the library, and more space for research laboratories and more classrooms," he said. "We hope that means will be found to enlarge the nurses' home and the medical school."

The medical center, because of rapid developments in medicine, must devote more and more attention to postgraduate instruction, Dr. Gatch said. The annual postgraduate course in general medicine and surgery, followed by the graduate course in otolaryngology were created to meet this need and the department of urology is planning a course this year, he pointed out.

"All of the buildings and all of the equipment of this great center, on last analysis, exist for the better training of medical students," the speaker added. "This student body represents the very pick, mentally and physically, of the youth of the state. It gave me great pleasure to have every member of the class of 1939 pass the examination of the State Board of Medical Registration and Examination. This is the third consecutive year for this to happen."

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Indiana University's psychological clinics, located at Bloomington and Indianapolis, served 802 persons during the past year, Dr. C. M. Louttit, director of the clinics, has announced. This represents an increase over the previous year of 16 per cent. The Indianapolis clinic had 444 cases last year and the Bloomington clinic 358.

The personnel of the Bloomington clinic included Dr. Louttit and two assistants, Mrs. Marguerite E. Topper and K. S. Brown. During the year there were 25 different advanced students enrolled in practice courses in the clinic.

Dr. Jerry W. Carter, Jr. was senior clinical psychologist at Indianapolis and was in charge of the clinic operation under supervision of Dr. Louttit. During the first semester, Miss Jessie Wells was junior clinical psychologist and spent part time in connection with the cerebral-palsy clinic, while during the second semester, Robert C. Kammerer was junior clinical psychologist.

Those taken care of by the Bloomington clinic included mainly pupils from the Bloomington and Monroe county schools, department of public welfare, mental hygiene clinic, juvenile court, depart-



ment of public health, Indiana University and a few patients from Lawrence and Greene counties.

The Indianapolis clinic took care of cases from the Riley Hospital, Rotary Home, Long Hospital and Coleman Hospital, in addition to those sent by the Riley O-P clinic, Indianapolis schools, physicians, social service agencies and juvenile courts. At the Indianapolis clinic 380 were new examinations while 64 were re-examinations. Three hundred and ninety-two of the Indianapolis cases came from the Riley Hospital. One hundred and seven additional contacts were made during the past year, Dr. Carter said. Types of Indianapolis cases were psychological, orthoptic, research and cerebral-palsy.

"Notable in this classification is the reappearance of orthoptic cases, which were given orthoptic training at the request of the out-patient eye-clinic," he said. "The new class, 'Cerebral-palsy clinic' includes cases seen by Miss Wells, who has been working in both clinics. The work of this group involves the appraisal of these crippled children and also subsequent check on their progress under treatment."

During the year 272 students were enrolled in the various lecture courses given under the auspices of the clinic at Bloomington. There were 25 additional students enrolled in clinic practice courses. In the Indianapolis extension center, there were 61 students enrolled in courses in clinic psychology given by Dr. Louttit.

"There are many reasons to believe that Indiana University now affords one of the best programs for training of clinical psychologists available at any university of the country," Dr. Louttit explained. "Plans are now being made to improve this program especially the direction of requiring, and making available, periods of practical internship."

## INDIANA STATE BOARD OF HEALTH

### BUREAU OF COMMUNICABLE DISEASES

#### Monthly Report, August, 1939

Diseases	Aug., 1939	July, 1939	June, 1939	Aug., 1938	Aug., 1937
Tuberculosis	193	172	157	174	181
Chickenpox	11	43	133	9	16
Measles	14	29	33	23	72
Scarlet Fever	91	103	232	74	82
Smallpox	3	36	40	14	15
Typhoid Fever	33	31	16	62	26
Whooping Cough	234	568	258	40	131
Diphtheria	23	30	19	26	24
Influenza	8	38	14	14	13
Pneumonia	25	25	26	23	35
Mumps	24	40	92	8	9
Polio-myelitis	4	1	2	1	34
Cerebro Spinal Meningitis	0	5	2	3	5
Trachoma	6	0	0	0	0
Rocky Mountain Spotted Fever	6	0	0	3	1
Malaria	9	9	3	1	4
Undulant Fever	10	4	5	0	0

## INDIANA STATE MEDICAL ASSOCIATION

### THE COUNCIL

#### First Meeting

(Fort Wayne Session, October 10, 1939)

The Council of the Indiana State Medical Association convened for a luncheon-business meeting in a private dining room of the Keenan Hotel, Fort Wayne, at 12:45 Tuesday, October 10, 1939, with Dr. M. A. Austin, of Anderson, the chairman, presiding. Roll called showed the following present:

#### Councillors:

- 1st district—I. C. Barclay, Evansville
- 2nd district—H. C. Wadsworth, Washington
- 3rd district—W. H. Garner, New Albany
- 5th district—O. O. Alexander, Terre Haute
- 6th district—Samuel Kennedy, Shelbyville
- 7th district—C. J. Clark, Indianapolis
- 8th district—M. A. Austin, Anderson
- 9th district—F. T. Romberger, Lafayette
- 10th district—James M. White, Gary
- 11th district—Ira Perry, North Manchester
- 12th district—A. J. Sparks, Fort Wayne
- 13th district—Alfred Ellison, South Bend

#### Officers:

- President—E. M. Van Buskirk, Fort Wayne
- President-elect—Karl R. Ruddell, Indianapolis
- President 1938—Herman M. Baker, Evansville
- Treasurer—A. F. Weyerbacher, Indianapolis
- Editor of THE JOURNAL—E. M. Shanklin, Hammond

#### Executive Committee:

- C. A. Nafe, Indianapolis, chairman
- Albert Stump, Indianapolis, attorney for association
- T. A. Hendricks, executive secretary

#### Legislative Committee:

- N. M. Beatty, Indianapolis, co-chairman

#### Convention Arrangements:

- M. R. Lohman, Fort Wayne, chairman

By unanimous consent, the reading of the minutes of the midwinter meeting of the Council, held in Indianapolis on January 29, 1939, was dispensed with, as these minutes were published in the March, 1939, issue of THE JOURNAL.

### Convention Expenses

Following discussion by Drs. Austin, Lohman, Sparks, Clark and the secretary in regard to expenses of the Fort Wayne convention and the action taken by the Council at its midwinter meeting which would "allocate an amount not to exceed \$1,000 for the Fort Wayne convention," it was taken by consent that \$1,000 be given to the local convention arrangements committee. Out of this amount the Fort Wayne Medical Society is to pay for the rental of the convention hall, the balance to be the property of the Fort Wayne Society to be used to defray expenses that ordinarily accrue to the local society, without taking into account any of the expenses generally paid by the state association.

In this connection the secretary spoke of four innovations of this year's convention: (1) the archery contest, (2) the Hall of Health, (3) the hobby show, and (4) a radio talk to be given during the session by Dr. Nathan B. Van Etten, president-elect of the American Medical Association.

tion and principal convention speaker and guest of honor, over a national hook-up from Fort Wayne.

### Councilor Reports

Councilor district reports were accepted as printed in the September, 1939, issue of *THE JOURNAL*.

Dr. Clark announced that the Seventh District meeting will be held on November 15 at Martinsville.

### Unfinished Business

*Increase in state association dues.* Drs. Austin, Clark, Baker, Sparks, Alexander and Perry discussed this question, following which Dr. Perry made the motion that the "Council recommend to the House of Delegates that there be a \$3.00 raise in the State dues, making them \$10.00 a year." This motion was seconded by Drs. White and Clark, and carried. The Council suggested a suspension of the rules in order that this subject might be discussed following the reading of this resolution in the House of Delegates.

### New Business

1. Upon the motion of Dr. Clark, seconded by Dr. White, the report of the Auditing Committee was accepted as printed in the September, 1939, *JOURNAL*.

2. Matters referred to the Council by the Executive Committee at its meeting Monday evening, October 9:

a. For the information of the Council the secretary read a letter containing the suggestion that the State Association meet in Indianapolis every year. He also mentioned the fact that he had received a petition signed by 26 exhibitors who attended the 1938 meeting in Indianapolis, recommending "that the Indiana State Medical convention meet each year in Indianapolis, where accommodations are better and more physicians can be seen."

b. Dr. L. W. Vore's suggestion concerning the state association organizing a company to carry health and accident insurance for its members was deferred to the next meeting of the Council.

c. *JOURNAL* printing contract. The secretary announced that the *JOURNAL* printing contract is due for renewal. C. E. Pauley and Company, the present printers, are willing to continue printing *THE JOURNAL* at the present rate with provision that they be protected on an increase in the price of paper. As a result of impending and present wars, paper prices are unpredictable and they are increasing slowly but steadily. Upon the motion of Dr. Clark, duly seconded, the Council approved renewal of the contract with C. E. Pauley and Company for 1940.

3. Election of editor of *THE JOURNAL* for 1940. Dr. E. M. Shanklin was unanimously re-elected editor of *THE JOURNAL* for 1940.

4. Election of two members to serve on editorial board for three years. Upon the motion of Dr.

Romberger, seconded by Dr. Clark, Dr. Edmund L. Van Buskirk of Lafayette was elected unanimously to succeed Dr. Romberger, and upon the motion of Dr. Clark, seconded by Dr. Romberger, Dr. James F. Balch, of Indianapolis, was elected unanimously to succeed Dr. T. B. Rice, as members of the editorial board.

Following these elections, Dr. Perry made the motion that nominations for membership on the editorial board be presented to the Council at its meeting in January, to be voted on at the Council meeting in October. This motion was seconded by Dr. Clark and carried. The chairman announced that in the future the names of all those to be nominated for the editorial board must be presented at the midwinter meeting of the Council in order that the councilors may know something about the men for whom they vote at the October meeting of the Council.

5. Advertisements in *THE JOURNAL*. The secretary spoke of the fact that with radio and direct mail advertising, competition for advertising is greater than ever before and he asked that the councilors answer the advertisements in *THE JOURNAL* if they could do so legitimately as the Cooperative Advertising Bureau of the American Medical Association is requesting continually that this be done.

6. Report by chairman of Executive Committee. Dr. Nafe read a supplementary report in regard to hospital insurance which he said would be presented to the House of Delegates, and which, therefore, was not discussed. (See minutes of the House of Delegates, page 655.)

Dr. Nafe called the attention of the Council to the following two matters: (1) The question of membership in the county medical societies and therefore in the state association and the American Medical Association of men practicing in Indiana who are not eligible to a license from the State Board of Medical Registration and Examination, and (2) Changes in the Constitution and By-Laws suggested by the Executive Committee at the end of its annual report.

Discussion of the matter of membership in the county and state societies of physicians not licensed in Indiana brought out the following points:

a. Physicians come to Indiana and become members of the local county medical societies, and therefore the state association and the American Medical Association, before they receive their licenses from the State Board of Medical Registration and Examination.

b. Some graduates of B class schools who are eligible to practice in Illinois have offices on the state line and therefore practice in Indiana also.

c. Some of the county societies in Indiana require a residence of one year before membership can be obtained in the local society and they thereby avoid such situations.

The chairman suggested that a change should be made in the Constitution and By-Laws of the



state association to require a physician to be "a legally licensed physician in the State of Indiana" and he suggested also that the Council make a recommendation that no county society accept a member who is not legally licensed in the State of Indiana.

Dr. Clark spoke of the resolution which was to be introduced in the House of Delegates containing the requirement that individuals (nurses and physicians) who practice their professions on public payrolls shall be required to have a license in the state in which they practice. The chairman instructed Dr. Clark to see that all of these points discussed by the Council were embodied in the proposed resolution.

7. January 7, 1940, was selected as the tentative date for the midwinter meeting of the Council.

8. The secretary announced that a request had been received for the Indiana State Medical Association to supply the program during two days of the forty-ninth annual meeting of the state conference on social work which is to be held in Indianapolis November 1 to 4, 1939. He said that the Executive Committee had discussed this and that the members of that committee think that such a program should consist of short papers by a number of men from throughout the state on such subjects as venereal diseases, tuberculosis, surgical conditions, pneumonias and heart diseases, contagious diseases and acute illnesses. Postal cards were sent to the members of the Executive Committee, the Bureau of Publicity and the Committee on Medical Education and Hospitals and with one exception all of the members of these committees are in favor of the plan.

The chairman suggested that no one be given over fifteen minutes to talk.

Following favorable discussion by several of the councilors, Dr. Perry moved that this matter be referred back to the Executive Committee. Motion seconded by Dr. Clark, and carried.

9. The resolution, prepared by the Executive Committee for consideration of the House of Delegates, which would change Chapter IV, Section 2, of the By-Laws so that joint county medical societies would be entitled to at least one delegate from each county, was brought to the attention of the Council. Following discussion of the resolution pro and con by Drs. Clark, Wadsworth, White, Nafe, Perry, Austin and Romberger, it was taken by consent that Dr. Nafe should appear before the reference committee of the House of Delegates to which this resolution will be referred and explain that a difference of opinion exists in the Council in regard to this change in the By-Laws and that there is some question as to the wisdom of it.

10. The resolution prepared by the Executive Committee recommending that "the traveling expenses for all committees for special call meetings be paid and that this action be made retroactive for one year" was approved by the Council upon

a motion made by Dr. Clark and seconded by Dr. White.

11. Upon the motion of Dr. Clark, seconded by Dr. Ellison, the Council approved the recommendation of the Executive Committee that Article II of the Constitution and Section 4, Chapter VII of the By-Laws be amended to eliminate the word "material" in each of these paragraphs.

12. Payment of all convention expenses, including local entertainment, by state association. A memorandum prepared by Dr. Sparks called attention to the fact that (1) Increased convention attendance, greater demand for space by commercial exhibitors, increased number of scientific exhibits, and expanding activities to provide entertainment for those in attendance, limits the meeting places to three, at most four, cities in the state, and (2) That no society or district should be solicited for contributions to finance the annual session every three or four years. Dr. Sparks made the recommendation that an annual appropriation be established by the Council in an amount sufficient to defray all the expense of all activities, with the local arrangements being carried out by the host society as in the past, under the direction and supervision of the executive secretary, and within the budget so fixed.

Following discussion the Council went on record as approving unanimously the payment of all expense of the annual session by the state association, without calling upon the local organization in whose locality the convention is to be held to finance any portion of the expense, providing all expense shall be presented to the Council in a budget at the midwinter meeting of the Council preceding the annual session.

Dr. Beatty spoke briefly of the following legislative matters: (1) University hospital bill; (2) Annual registration bill, and (3) Hospital insurance.

There being no further business, the Council was adjourned.

THOMAS A. HENDRICKS,  
*Executive Secretary.*

#### THE COUNCIL Second Meeting

(Fort Wayne Session, October 12, 1939)

The second meeting of the Council was called to order at 10:15 a.m., Thursday, October 12, 1939, in the Chatterbox, Anthony Hotel, Fort Wayne, immediately upon adjournment of the final meeting of the House of Delegates.

The minutes of the previous meeting were not read.

Roll call showed the following members present:  
*Councilors:*

1st district—I. C. Barclay, Evansville  
2nd district—H. C. Wadsworth, Washington  
3rd district—W. H. Garner, New Albany  
4th district—M. C. McKain, Columbus  
5th district—O. O. Alexander, Terre Haute  
7th district—C. J. Clark, Indianapolis  
8th district—M. A. Austin, Anderson

10th district—James M. White, Gary  
 11th district—Ira Perry, North Manchester  
 12th district—A. J. Sparks, Fort Wayne  
 13th district—Alfred Ellison, South Bend

*Officers:*

President-elect—Karl R. Ruddell, Indianapolis  
 Treasurer—A. F. Weyerbacher, Indianapolis

*Executive Committee:*

C. A. Nafe, Indianapolis, chairman  
 Albert Stump, Indianapolis, attorney for association  
 T. A. Hendricks, executive secretary

**Unfinished Business**

(1) Amendment to Section 3, Article IX of the Constitution. The secretary called attention to the fact that at the 1938 meeting of the House of Delegates Dr. Perry presented an amendment in regard to the eligibility of a member of the House of Delegates to an office in the state association, which would necessitate a change in the Constitution. This amendment should have been printed twice during the year and brought up before the House of Delegates again at this meeting but as it was not published twice since the last meeting the amendment was not eligible to be voted on at this meeting. The amendment will be printed twice before the 1940 meeting of the House of Delegates, at which time it can be voted upon.

(2) Increase in state association dues. The secretary spoke of the fact that matters having to do with the finances of the association are passed upon by the House of Delegates and then are referred to the Council for final action. He reported that following adjournment of the last meeting of the House of Delegates, at which time the House approved the recommendation of the Council that the state dues be increased \$3.00, making them \$10.00 per year, a delegate from Vigo county had come to him and said that he had been instructed to vote against any increase in state dues and that he had had no opportunity to do so as the presiding officer of the House of Delegates did not ask for the noes.

Mr. Stump, attorney for the association, said that the chairman of a meeting is not absolutely required to put both sides—he may put one side and announce the result. Always the members of the deliberative body over which the person is presiding have the right to ask for the division which means that the chairman must ask for both sides, so if a group challenges the accuracy of the vote he will have both votes. If the vote is not challenged, from a legal standpoint it stands as the unanimous vote. The delegate from Vigo county did not call for a division.

*The Chairman:* I am not going to make this decision without the voice of the Council being registered individually. In your opinion should this matter be definitely decided at this time and accepted, with the raise in dues to begin January 1, or should it be postponed and re-voted upon next year? We shall vote on acceptance of the increase in dues.

*First District—Barclay.* Yes.

*Second District—Wadsworth.* Yes.

*Third District—Garner.* Yes.

*Fourth District—McKain.* From my district here there was no voice when I know that every delegate from every county in our district was instructed to vote against that. I have been to each county and each county has emphatically told me to vote against it. Personally I am in favor of it and would like to see it put in now. I vote no.

*Fifth District—Alexander.* In view of the fact that Mr. Stump has rendered the opinion that the action taken by the chairman is legal, I vote yes.

*Sixth District—Kennedy.* Absent.

*Seventh District—Clark.* Yes.

*Eighth District—Austin.* Yes.

*Ninth District—Romberger.* Absent.

*Tenth District—White.* Yes.

*Eleventh District—Perry.* Yes.

*Twelfth District—Sparks.* Yes.

*Thirteenth District—Ellison.* Yes.

*The Chairman:* I will have to rule, with Mr. Stump's cooperation, that the Council has decided the action taken by the House of Delegates is legal.

(3) Health and accident insurance plan of Dr. L. W. Vore of Plymouth. As Dr. Vore was not present at the first meeting of the Council this matter was deferred until this time. The secretary informed the Council that Dr. Vore was available and he would be glad to read his plan. Dr. Wadsworth made the motion that the Council hear Dr. Vore. Motion seconded by Dr. Clark, and carried. Dr. Vore read as follows:

"Realizing that a doctor's sole stock in trade is his time and wishing to protect that stock in trade at as low a cost as possible, I submit the following plan for your consideration:

"Utilizing the State Headquarters Office as headquarters of a Doctors' Mutual Benefit Association and utilizing the County Medical Society as basic units for collection of premiums and distribution of benefits, the plan could be made to function efficiently and at extremely low cost.

"Membership: Any actively practicing physician in good standing in his local and state society below the age of 60 years. Membership to continue through life; however, to decrease prospects of immediate payment of benefits an age limit of 60 years would have to be in effect.

"Premium: \$75 per year collected annually would provide accident and sickness benefits of \$200 per month for a period of 12 months. All funds to be invested in U. S. Government Bonds except a small cash balance for immediate operating expense. Benefits for the first two or three years or until a sufficient cash reserve had been accumulated to be paid semi-annually, if necessary, as in case of an unusual number of claims, and also if necessary on a pro-rata basis until a sufficient reserve had been accumulated. After a sufficient reserve had been accumulated which would in all probability be within two to four years, payments of benefits would be on presentation of claim.

"If after a period of five years or more a sufficient reserve had accumulated, the contributing doctors could have a proportionate decrease in premium or a cash refund pro-rata at the end of each succeeding year.

"Officers and clerks would of course be properly bonded. All funds would be placed in a central depository in Indianapolis.



"Health and accident benefits would thus be at absolute cost.  
"A few objections may be listed here:  
1. Attitude of insurance companies toward such a plan.  
2. Possible accusation that this is a trend toward socialization."

Dr. Perry made the motion that inasmuch as the time was short this matter be deferred until the midwinter meeting of the Council and that Dr. Vore be asked to be present at that time. This motion was seconded by Dr. Garner.

The chairman suggested that in the meantime the plan be referred to the Permanent Study Committee on Health Insurance and National Medical Situation and if that committee thinks it advisable, it can refer it to the Council at the January meeting. Dr. White offered this suggestion in the form of an amendment to Dr. Perry's motion. The amendment to the motion was seconded by Dr. McKain and the amended motion was carried unanimously.

New Business

(1) At this time the secretary introduced to the Council Mr. Ralph Weber, the assistant secretary of the Milwaukee County Medical Society.

(2) Dr. George Dillinger appeared before the Council and asked that the dates for the 1940 convention be definitely set as soon as possible. Upon the motion of Dr. Wadsworth, seconded by Dr. McKain, the Council referred this matter to the headquarters office and the members of the Executive Committee who reside in Indianapolis for decision at as early a date as possible.

(3) Dr. Wadsworth spoke of the ruling regarding the distribution of WPA cases, saying that the physician-patient relationship does not exist under this new ruling and that the whole plan is wrong.

The secretary reported that the Executive Committee had taken this matter up with M. R. Ray, state compensation officer of the Works Progress Administration of Indiana, and the committee had found that this was not a state but a national ruling. The secretary read the following from a letter which was received from the secretary of the American Medical Association in regard to this subject:

"As a matter of fact, the order directing that there shall be an equitable distribution of medical services for the benefit of WPA workers among the physicians of an individual community is, as I understand it, exactly what physicians themselves have been demanding. You will recall one incident in your own state where considerable agitation was occasioned because of maldistribution whereby two or three men in a certain community received practically all the compensation that was allowed for medical relief service.

"This situation, as I see it, is one that is a little difficult from several standpoints. It is, of course, fair that where all physicians concerned are equally qualified to render service of the kind that is

demandd by the nature of an individual case, there should be wholly equitable distribution of work among such physicians. It is no doubt true that in many communities only a relatively small number of physicians may be adept in the rendition of certain kinds of professional services."

Further discussion followed but as this was merely informative, no action was taken by the Council.

Upon the motion of Dr. Clark, seconded by Dr. Perry, and carried, the Council was adjourned.

THOMAS A. HENDRICKS,  
*Executive Secretary.*

INDIANA STATE MEDICAL ASSOCIATION  
HOUSE OF DELEGATES

(Fort Wayne Session 1939)

First Meeting

The first meeting of the House of Delegates convened at 4:15 o'clock, Tuesday afternoon, October 10, 1939, in the Shrine Theater, Fort Wayne, the president, Dr. E. M. Van Buskirk, of Fort Wayne, presiding.

Motion was made, seconded, and carried that the attendance slips be accepted as the roll call. These slips showed the following present:

County	Delegates
Allen:	M. B. Catlett, Fort Wayne Maurice R. Lohman, Fort Wayne William C. Wright, Fort Wayne
Bartholomew:	H. J. Norton, Columbus
Benton:	V. L. Turley, Fowler
Boone:	E. A. Rainey, Lebanon
Carroll:	Charles C. Crampton, Delphi
Cass:	William E. Barnett, Logansport
Clark:	Ernest P. Buckley, Jeffersonville
Clay:	H. H. Ward, Coalmont
Clinton:	Robert A. Hedgcock, Frankfort
DeKalb:	J. W. Thomson, Garrett
Delaware-Blackford:	Clay A. Ball, Muncie
Elkhart:	A. C. Yoder, Goshen
Floyd:	P. H. Schoen, New Albany
Fountain-Warren:	Simeon Lambright, Covington
Fulton:	A. E. Stinson, Rochester
Gibson:	R. W. Wood, Princeton
Grant:	Russell W. Lavengood, Marion
Greene:	M. S. Mount, Bloomfield
Hamilton:	Russell E. Havens, Cicero
Hancock:	J. E. Ferrell, Fortville
Harrison:	William E. Amy, Corydon
Hendricks:	O. T. Scamahorn, Pittsboro
Howard:	W. H. Hutto, Kokomo
Jackson:	H. P. Graessle, Seymour
Jefferson:	N. A. Kremer, Madison
Jennings:	D. W. Matthews, North Vernon
Johnson:	Oran A. Province, Franklin
Kosciusko:	Orville H. Richer, Warsaw
Lake:	C. M. Jones, Whiting T. W. Oberlin, Hammond P. Q. Row, Hammond Jon N. Kelly, LaPorte
LaPorte:	Charles B. Emery, Bedford
Lawrence:	C. V. Rozelle, Anderson
Madison:	E. O. Asher, New Augusta
Marion:	Norman M. Beatty, Indianapolis Eugene F. Boggs, Indianapolis Ralph L. Lochry, Indianapolis Henry F. Nolting, Indianapolis F. B. Ramsey, Indianapolis J. O. Ritchey, Indianapolis

	Lacey L. Shuler, Indianapolis
	O. W. Sicks, Indianapolis
	M. J. Spencer, Indianapolis
	Chas. F. Thompson, Indianapolis
Marshall:	A. A. Thompson, Tyner
Monroe:	Robt. E. Lyons, Jr., Bloomington
Montgomery:	T. Z. Ball, Crawfordsville
Noble:	W. F. Carver, Albion
Orange:	George Dillinger, French Lick
Pike:	L. M. McNaughton, Petersburg
Posey:	W. E. Jenkinson, Mt. Vernon
Putnam:	Dick J. Steele, Roachdale
Randolph:	J. S. Robison, Winchester
Ripley:	George S. Row, Osgood
	J. T. Carney, Batesville (Alt.)
St. Joseph:	Erwin Blackburn, South Bend
	Alfred S. Giordano, South Bend
	M. D. Wygant, Mishawaka
Scott:	Floyd S. Napper, Scottsburg
Shelby:	Bayard G. Keeney, Shelbyville
Spencer:	J. C. Glackman, Rockport
Steuben:	W. F. Waller, Angola
Sullivan:	J. T. Oliphant, Farmersburg
Tippecanoe:	O. L. McCay, Romney
Tipton:	S. M. Cotton, Goldsmith
Vanderburgh:	Robert R. Acre, Evansville
	Minor Miller, Evansville
	Philip E. Yunker, Evansville
Vigo:	R. G. Harkness, Terre Haute
	Ernest O. Nay, Terre Haute
Wabash:	O. G. Brubaker, N. Manchester
Wayne-Union:	W. A. Thompson, Liberty
Wells:	Max M. Gitlin, Bluffton
Whitley:	Paul A. Garber, South Whitley

#### Councilors

1st district—	I. C. Barclay, Evansville
3rd district—	William H. Garner, New Albany
5th district—	O. O. Alexander, Terre Haute
6th district—	Samuel Kennedy, Shelbyville
7th district—	C. J. Clark, Indianapolis
8th district—	M. A. Austin, Anderson
9th district—	Floyd T. Romberger, Lafayette
10th district—	James M. White, Gary
11th district—	Ira E. Perry, North Manchester
12th district—	A. Jerome Sparks, Fort Wayne
13th district—	Alfred Ellison, South Bend

#### Past Presidents

E. M. Shanklin, Hammond
Charles N. Combs, Terre Haute
G. R. Daniels, Marion
F. S. Crockett, Lafayette
E. E. Padgett, Indianapolis
R. L. Sensesich, South Bend
Herman M. Baker, Evansville

#### Officers

E. M. Van Buskirk, Fort Wayne, president
Karl R. Ruddell, Indianapolis, president-elect
A. F. Weyerbacher, Indianapolis, treasurer
T. A. Hendricks, executive secretary
Albert Stump, Indianapolis, attorney for association

Dr. W. F. Carver, chairman of the Committee on Credentials, announced that a quorum of delegates was present, and the chairman declared the House open and ready for the transaction of business.

The chairman called attention to the gavel which he was using which was presented to him during the last year by Dr. S. S. Frazier, of Angola. This gavel is made of thirteen kinds of wood, one from each of the thirteen medical districts in the state.

**THE CHAIRMAN:** The By-Laws may be amended at any annual session by a majority vote of all delegates present at that session, after the amend-

ment has laid on the table for one day. The House of Delegates may amend any article of the Constitution by a two-thirds vote of all delegates present at any annual session provided that such amendment shall have been presented in open meeting at the previous annual session and that it shall have been published twice during the year in *THE JOURNAL* of the association. The House will recall that the Constitution of the state association was recodified last year, and copies are available at the headquarters office.

(At this time the House of Delegates stood for a few moments in tribute to the memory of the following former members of the House of Delegates or of state association committees, all of whom had died since the last annual session:

Dr. Walter C. McFadden, Shelbyville, former member of the House of Delegates and member of the 1939 Health Insurance Committee.

Dr. C. C. Bassett, Goodland, former chairman of Committee on Veterans' Affairs.

Dr. E. H. Andrews, Peru, former president of Miami County Medical Society, and secretary-treasurer of his county society from 1934 to 1938, inclusive.

Dr. J. O. Parramore, Crown Point, member of the 1939 Anti-Tuberculosis Committee.

Dr. W. C. Sarber, Argos, former committee member.

Dr. J. E. P. Holland, Bloomington, former member of Committee on the Study of High School Athletics.)

Motion made by Dr. Romberger that the reading of the minutes of last year's meetings be dispensed with, as these minutes were printed in the November, 1938, *JOURNAL*, was seconded by Dr. Daniels, and carried.

**THE CHAIRMAN:** Your attention is called at this time to Article V of the Constitution, which gives the delegates and alternates to the A.M.A. the right to sit in the House of Delegates, have the privilege of the floor, but have no power to vote. All members of the association who desire to sit in on this meeting to hear deliberations of the House are welcome. The presidents and secretaries of county medical societies have been invited through *THE JOURNAL* to attend.

In accordance with Chapter IX, Section 1, of the By-Laws of the association, reference committees have been appointed by the president and are published in the October *JOURNAL* and on pages 157 and 158 of the Handbook. These committees are to serve during the session for which they are appointed. These committees should organize immediately after the adjournment of the House today and determine a definite place and time of meeting, each committee chairman announcing on the floor of the House of Delegates the time and place his committee is to meet and turning over to the secretary a note in writing in order that this information may be placed on the bulletin board at the registration desk.



These reference committees as previously appointed and published are as follows:

#### Sections and Section Work:

P. H. Schoen, New Albany, chairman	(Floyd)
O. L. McCay, Romney	(Tippecanoe)
M. D. Wygant, Mishawaka	(St. Joseph)
R. W. Wood, Princeton	(Gibson)
W. H. Harrison, Kokomo	(Howard)

#### Rules and Order of Business:

O. T. Scamahorn, Pittsboro, chairman	(Hendricks)
W. F. Waller, Angola	(Steuben)
O. G. Brubaker, North Manchester	(Wabash)
Max M. Gitlin, Bluffton	(Wells)
Paul Garber, South Whitley	(Whitley)

#### Medical Education and Hospitals:

O. O. Alexander Terre Haute, chairman	(Vigo)
R. L. Sensenich, South Bend	(St. Joseph)
M. B. Catlett, Fort Wayne	(Allen)
Walter M. Stout, Newcastle	(Henry)
R. R. Acre, Evansville	(Vanderburgh)

#### Public Policy and Legislation:

Jesse E. Ferrell, Fortville, chairman	(Hancock)
T. W. Oberlin, Hammond	(Lake)
A. A. Thompson, Tyner	(Marshall)
E. O. Asher, New Augusta	(Marion)
A. J. Sparks, Fort Wayne	(Allen)

#### Publicity:

Clay A. Ball, Muncie, chairman	(Delaware-Blackford)
Simeon Lambright, Covington	(Fountain-Warren)
A. E. Stinson, Rochester	(Fulton)
William E. Amy, Corydon	(Harrison)
John Lausford, Redkey	(Jay)

#### Hygiene and Public Health:

G. R. Daniels, Marion, chairman	(Grant)
W. O. Hildebrand, Topeka	(LaGrange)
W. L. Green, Columbus	(Bartholomew)
R. W. Lavengood, Marion	(Grant)
C. C. Crampton, Delphi	(Carroll)

#### Amendments to Constitution and By-Laws:

M. R. Lohman, Fort Wayne, chairman	(Allen)
Will A. Thompson, Liberty	(Wayne-Union)
F. T. Romberger, Lafayette	(Tippecanoe)
Alfred Ellison, South Bend	(St. Joseph)
A. M. Hasewinkle, Markle	(Huntington)

#### Reports of Officers:

J. T. Oliphant, Farmersburg, chairman	(Sullivan)
H. P. Graessle, Seymour	(Jackson)
A. C. Yoder, Goshen	(Elkhart)
Minor Miller, Evansville	(Vanderburgh)
William C. Wright, Fort Wayne	(Allen)

#### Committee on Credentials:

O. W. Sicks, Indianapolis, chairman	(Marion)
T. Z. Ball, Crawfordsville	(Montgomery)
J. C. Glackman, Rockport	(Spencer)
G. A. Thomas, Lafayette	(Tippecanoe)
R. H. Pierson, Spencer	(Owen)

#### Miscellaneous Business:

H. C. Wadsworth, Washington, chairman	(Davies-Martin)
Philip E. Yunker, Evansville	(Vanderburgh)
S. M. Cotton, Goldsmith	(Tipton)
Ira Perry, North Manchester	(Wabash)
John Robison, Winchester	(Randolph)

#### Special Committee on Health Insurance:

F. S. Crockett, Lafayette, chairman	(Tippecanoe)
Herman M. Baker, Evansville	(Vanderburgh)

C. M. Jones, Whiting	(Lake)
George Dillinger, French Lick	(Orange)
Jon N. Kelly, LaPorte	(LaPorte)

It is my privilege to introduce at this time two guests of this organization, two full-time secretaries of the state, one from St. Joseph county, Mr. Paul Waddell, and one from Lake county, Mr. Rollen Waterson. (Mr. Waddell and Mr. Waterson spoke briefly of the activities and plans of their respective societies.)

#### REPORTS OF OFFICERS

**THE CHAIRMAN:** Most of these reports except for the address from the chair and the address of the president-elect are printed in the September issue of THE JOURNAL and in the Handbook, but each officer and committee chairman will be given five minutes to make any additions or explanation to the reports already published.

The address of the president, to be made before the general meeting on Wednesday, will be referred to the Reference Committee on Reports of Officers.

#### ADDRESS OF THE PRESIDENT-ELECT

**DR. KARL R. RUDELL:** Mr. Chairman and members of the House of Delegates:

Words at my command seem entirely inadequate to express appreciation of this high honor you have conferred upon me. I deeply appreciate that along with this honor goes a great responsibility, one that has been faithfully discharged by a long list of illustrious predecessors. It is my serious obligation to promote and safeguard the interests of medicine and its inseparable ally, the good of the public health. To this end I pledge my most sincere efforts.

The one thing more than any other that has enabled the medical profession to exist and continue as a dominant and useful body has been the close adherence to a code of ethics. We may go back 2500 years B.C. to Hammurabi in Babylon to find the first such code. The real foundation of present day medical ethics, however, is the Hippocratic oath. The general pattern of medical ethics throughout the civilized world has been dominated by this oath. True, medical ethics have changed with changing times, but whenever and wherever medicine has gone far afield from the principles laid down by Hippocrates, both the medical profession and the public have suffered. We have a right to assume that such will be the case in the future. At no time in history have we seen throughout the world such rapid economic and political changes as those since the World War. We may be justified in the fear that the present war may accelerate and make more violent inroads in our social and political economy. Medicine can hardly expect to escape. Indeed it has not. The last World War witnessed the creation of the panel system in England. In many of the middle European states, the principles of the Hippocratic oath were even more flagrantly violated, and the profession regimented by governmental action. Such a situation, we feel, has adversely affected the profession, and the health of

that and future generations. In the present crisis, calmness of judgment and adherence to sound policies of the past may suffer in the universal chaos and hysteria.

In this country there have been governmental commissions, and self-appointed foundations whose functions have been to study the problem of medical care. A public health congress, stacked with social workers, has emphasized our short comings and attempted to suggest plans of their own to provide medical services to certain classes of our people. Laws drawn without the consultation or advice of the medical profession, tending to bring about drastic changes in the principles of medical practice have been introduced in Congress. The American Medical Association, some of its component bodies and individuals have been criminally indicted. What can be done to keep the medical profession free from regimentation, and untrammelled in its scientific progress? How are the functions of public health to be kept where they belong, under the direction of the only group that can and must render such service—the medical profession?

The statement, widely publicized by social workers and certain lay periodicals, that forty million Americans are denied adequate medical care is a gross and malicious misstatement of facts. However, we must admit the existence of some very serious problems having to do with medical care. The increase in numbers of the medically indigent has created too big a load for the profession alone to bear. The necessary cost of ever-increasing diagnostic aids and methods of treatment constitutes a very serious problem to individuals of low income groups. These and other medical problems should be solved by organized medicine, either by constructive action or consultative direction.

The American Medical Association has done a grand job to date, but after all, it is a democratic organization and needs the active aid of every one of its members. We are all aware of the fact that in a democracy such as ours, legislative action is often directed or modified by organized minority groups. There is little doubt that the medical profession, should it choose, could constitute the most powerful minority in America. While such methods are greatly to be deplored, there may be times when this action, widely-used by other groups, becomes necessary for self-preservation. Certainly, singleness of purpose and unity of action, exercised unselfishly by our profession, can accomplish a great deal to protect our own interests and promote the good of the public health.

The deliberations of this, the policy-forming body of our state association, should be carefully considered and freely discussed. Its decisions should be aggressively supported by a united profession. Any legislative program should be started now and not left to our legislative committee at the last moment.

In conclusion, let us keep our own house in order, continue our unselfish devotion to duty, and unit-

edly strive to keep our profession unhampered by undue state direction. Under such a program there is every assurance that the medical profession will, in the future as it has in the past, provide adequate medical care to all our people.

(Referred to Reference Committee on Reports of Officers.)

#### REPORT OF THE EXECUTIVE SECRETARY

Referred to Reference Committee on Reports of Officers.

#### REPORT OF THE TREASURER

Referred to Reference Committee on Reports of Officers.

#### REPORT OF CHAIRMAN OF THE COUNCIL

DR. M. A. AUSTIN: I have only one thing to add to my report as printed in the Handbook and that is the recommendation which was approved at the meeting of the Council this afternoon. It was recommended at that meeting that the state association dues be increased \$3.00, making them \$10.00 per year, this additional assessment to provide funds with which to pay the expenses of all committees, to take care of extra help in the headquarters office, and to finance the annual session.

Regarding the expenses of committeemen, the amount of work which some of the men have done this year has been such that the council agreed that this action should be retroactive for this year.

In regard to the annual session, the state association previously has appropriated \$500.00 for each session to the local society for its so-called entertainment which is not sufficient and the society which entertains must assess its members to take care of the deficit. The Council believes, in view of the fact that increased attendance and physical requirements have limited the convention to at most four cities in the state, that no one society should be asked to bear the brunt of entertaining the association once every four years. So it was the unanimous vote of the Council this afternoon that all of the expense incident to the meeting of the Indiana State Medical Association shall be borne by the Indiana State Medical Association instead of by any one society.

THE CHAIRMAN: You are free to discuss this question.

DR. R. A. HEDGCOCK: Would a registration fee take care of this rather than an assessment on everyone? We pay a fee at other medical conventions and we think nothing of it. Possibly those who do not participate in the state meeting shouldn't have to help defray the cost of entertainment features.

DR. C. J. CLARK: The entertainment feature is a very small part of the \$3.00 increase. We need help in the editorial office and business office at Indianapolis. I think you would materially reduce your attendance at convention by a registration fee.



DR. C. V. ROZELLE: It seems to me that a \$3.00 advance in dues is sort of a piecemeal method. I doubt if any of the doctors of the association would hesitate at an increase of \$5.00. I would suggest that the dues be raised \$5.00.

DR. A. S. GIORDANO: I am heartily in favor of the Council's recommendations. However, to my knowledge there is nothing in the Constitution to prohibit the Executive Committee from appropriating funds to execute what they consider important activities for the benefit of the association. Therefore, it would seem wise for the Executive Committee to proceed to make whatever expenditures seem fitting out of our general fund. If such activities prove their worth, I believe we will have no difficulty in obtaining additional funds by assessment. I am sure that no member of the state association would object to financing necessary activities when these needs are definitely shown to exist.

DR. M. B. CATLETT: I think we should follow the Council on this because they have made a study of it. After all we have to take things up from a methodical standpoint. This gentleman has reported this money is needed and I don't see where an increase of \$3.00 would hurt the society at all, and I am in favor of it.

DR. AUSTIN: It was a little bit of a surprise to me this afternoon to have several of the councilors report that all of the counties in their districts had reported in opposition to increasing the dues \$5.00, but if it could be shown necessary to provide for the payment of the expenses of these special committees and extra help, and if the state association assumes all of the burden of convention expense which has been borne in part by the local medical societies, there will be a need for all of this \$3.00. After this was explained to these councilors it was the unanimous opinion of the Council that this \$3.00 increase is justifiable at this time.

DR. HERMAN BAKER: As a matter of information and as chairman of the Committee on Medical Education and Hospitals, I would like to have an expression from this House as to just how far the Committee on Medical Education and Hospitals might go with the program of graduate education in the state. As the thing stands now, to proceed along the lines that have generally been adopted by other states, the committee on medical education is entirely lacking in funds. I would like to have an expression from the House as to just how far this committee should go in this state. Organized medicine pretty generally over the United States has assumed the responsibility for graduate education. Are we going to develop a program in Indiana of graduate education that will be comparable to that in other states? If we are going to do that, it is going to cost money. I would like to have an expression from the House.

DR. A. J. SPARKS: At the conclusion of last year's meeting, in regard to the recommendation

made by Dr. Baker, the councilors were given the duty of canvassing each of the counties in their districts to find out what the sentiment was in regard to a raise in dues. In the Council this afternoon we felt that generally the membership would be opposed to a \$5.00 increase and we compromised on an increase of \$3.00. Also, from what I could gather, there is not much enthusiasm at present for the postgraduate plan as outlined by Dr. Baker in his address before this House. I would suggest, therefore, that the raise in dues be limited to \$3.00 to care for the increase in the immediate needs of the headquarter's and JOURNAL staffs, as well as other items of expense. Any residue could be used to start this program on a smaller scale.

(In order to get the sentiment of the House the chairman asked for a hand vote. Thirty-eight delegates favored a \$3.00 increase, while 26 favored a \$5.00 increase.)

THE CHAIRMAN: The report of the chairman of the Council which is printed in the handbook is referred to the Reference Committee on Reports of Officers. The matter just discussed is referred back to the Council.

## REPORTS OF STANDING AND SPECIAL COMMITTEES

### COMMITTEE ON CREDENTIALS

Referred to Reference Committee on Credentials.

### EXECUTIVE COMMITTEE

DR. C. A. NAFE: The report of the Executive Committee is in your handbook. The report is rather long but still it has been considerably abbreviated. I want to call your attention to this—it seems that each year the duties of the executive secretary and his assistants are increasing considerably, which of course brings before us the question of additional help.

The Executive Committee would like to call attention to page 32, article 4, which is relative to membership of physicians not licensed to practice in Indiana. We have had several complaints from the American Medical Association and also from the State Board of Medical Registration and Examination. The Executive Committee, in its report, requests some discussion of this, but of course there is nothing the state association or the American Medical Association can do about that.

On page 55 in the "Conclusion" are suggested changes in the Constitution and By-Laws of the association. The suggested change in the By-Laws relative to allowing county societies desiring to join together to have separate delegates has met with considerable discussion and the Council today suggested that the chairman of this committee meet with the reference committee to which this matter is referred and discuss this question.

The final thing that we would like to call to your attention is a supplementary report, which we should like at this time to submit:

The Executive Committee desires to submit the

following supplementary report in order to clarify the official attitude of the Indiana State Medical Association in regard to non-profit hospital insurance. This is made necessary because the recommendations relative to hospital insurance of the Committee on Public Policy and Legislation and of the Director of Research of this association do not coincide with those of the Permanent Study Committee on Health Insurance and National Medical Situation.

The Executive Committee is entrusted by the By-Laws of the association with directing policies of the association between the meetings of the House of Delegates and the Council and therefore wishes the policy concerning this problem to be thoroughly understood.

On page 42, section C, of the Executive Committee's annual report, activities of the committee relative to hospital insurance are briefly outlined. The committee has been guided by the action of the House of Delegates of the Indiana State Medical Association at its annual session in 1938 and by the action of the House of Delegates of the American Medical Association at its special called meeting in September, 1938, both of whom approve of non-profit hospital insurance. Briefly, we co-operated with the Indiana Hospital Association in passing an enabling act to permit the formation of non-profit hospital insurance groups, which act was vetoed by the Governor.

Our efforts on the Governor's committee for the study of methods of inaugurating non-profit hospital insurance have been in the direction of laying the groundwork so that proper legislation can be again passed. The Governor's committee at present is committed to that program. The Executive Committee interprets the policy of the Indiana State Medical Association and the American Medical Association as being at the present time committed to cooperation with this movement for non-profit hospital insurance which has received great popular support.

This committee therefore recommends that this association do not in any way alter its attitude in this regard but that it continue to follow the leadership of the American Medical Association and continue to endorse non-profit hospital insurance programs when properly safeguarded. The Executive Committee feels that any change in the attitude of the Indiana State Medical Association would be very unpopular with the public and the press, and unwise.

Signed, Cleon A. Nafe, Chairman  
Karl R. Ruddell  
E. M. Van Buskirk  
Carl McCaskey  
M. A. Austin

**THE CHAIRMAN:** This supplementary report of the Executive Committee and also sections C, D and E, pages 42 to 44 in the handbook, of the Executive Committee's report is referred to the Special Reference Committee on Health Insurance.

The suggested amendment to the Constitution will be held over for one year.

The suggested change in the By-Laws is referred to the Reference Committee on Amendments to Constitution and By-Laws.

The resolution in regard to expenses of committeemen, on page 56 of the handbook, came before the Council which serves as the finance committee of the association.

The balance of the Executive Committee's report is referred to the Reference Committee on Reports of Officers.

#### COMMITTEE ON ARRANGEMENTS

Referred to Reference Committee on Miscellaneous Business.

#### COMMITTEE ON SCIENTIFIC WORK

Referred to Reference Committee on Sections and Section Work.

#### COMMITTEE ON PUBLIC POLICY AND LEGISLATION

**DR. N. M. BEATTY:** There are a number of things that are mentioned in that report; many things are not mentioned. I would like for every single delegate to study this report carefully. One particular point deserves consideration; that is the question of annual registration. For many years we have attempted to do something practical in the control of the cults. It is the opinion of the legislative committee, after careful study and consultation with the State Board of Medical Registration and Examination, that the annual registration law is the only practical means that we can ever use to control the cults of this state. I think the members of that board will tell you that there are literally hundreds who are practicing in Indiana today who have no license of any kind. I believe every man here should give this subject much consideration. A good many objections come up. I would like to explain the attitude of your legislative committee on this point. A bill was introduced late in the session at the instigation of the State Board. We personally were very much for it. However, we had no official action of this body. I think it is time that this question is settled once and for all.

**THE CHAIRMAN:** The report of the Committee on Public Policy and Legislation, except that part in regard to hospitalization insurance, is referred to the Reference Committee on Public Policy and Legislation. The portion in regard to hospitalization insurance, on page 58 of the handbook, is referred to the Special Reference Committee on Health Insurance.

#### BUREAU OF PUBLICITY

Referred to Reference Committee on Publicity.

#### COMMITTEE ON CIVIC AND INDUSTRIAL RELATIONS

Referred to Reference Committee on Public Policy and Legislation.

#### COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

Referred to Reference Committee on Medical Education and Hospitals.



**COMMITTEE ON PUBLIC RELATIONS**

Referred to Reference Committee on Public Policy and Legislation.

**JOURNAL PUBLICATION COMMITTEE**

Referred to Reference Committee on Reports of Officers.

**COMMITTEE ON NECROLOGY AND HISTORIAN**

Referred to Reference Committee on Miscellaneous Business.

**COMMITTEE ON SECRETARIES' CONFERENCE**

Referred to Reference Committee on Miscellaneous Business.

**COMMITTEE ON SCIENTIFIC EXHIBIT**

Referred to Reference Committee on Sections and Section Work.

**COMMITTEE ON VETERANS' AFFAIRS**

Referred to Reference Committee on Public Policy and Legislation.

**PERMANENT STUDY COMMITTEE ON HEALTH INSURANCE AND NATIONAL MEDICAL SITUATION**

Referred to Special Reference Committee on Health Insurance.

**COMMITTEE ON STUDY OF HIGH SCHOOL ATHLETICS**

Referred to Reference Committee on Hygiene and Public Health.

**COMMITTEE ON MENTAL HEALTH**

Referred to Reference Committee on Hygiene and Public Health.

**COMMITTEE ON STATE FAIR**

Referred to Reference Committee on Publicity.

**COMMITTEE ON PREVENTION OF TRAFFIC ACCIDENTS**

Referred to Reference Committee on Hygiene and Public Health.

**STATE BOARD OF HEALTH LIAISON COMMITTEE TO DEAL WITH SOCIAL SECURITY ACT**

Referred to Reference Committee on Public Policy and Legislation.

**SUB-COMMITTEE TO STUDY MATERNAL MORBIDITY AND MORTALITY RATES FOR INDIANA**

Referred to Reference Committee on Public Policy and Legislation.

**LIAISON COMMITTEE WITH INDIANA CRIPPLED CHILDREN'S BUREAU**

DR. I. C. BARCLAY: Due to the fact that a meeting of this committee was held last Thursday I have a report which I should like to read from that committee.

October 10, 1939

House of Delegates,  
Indiana State Medical Association.  
Gentlemen:

The Liaison Committee for the Division of Services for Crippled Children of the State Department of Public Welfare presents the following report of the activities of this division.

Legislation enacted at the last session of the Indiana State General Assembly makes it possible to offer services through this division to crippled children up to twenty-one years of age. Using previous surveys of crippled children as a basis, it is estimated that there are approximately 12,000 crippled children below twenty-one years of age in the state. The division has received reports concerning approximately 7,000 handicapped children, many of whom may be eligible for services under

this program. At the present time more than 2,100 crippled children have been approved for necessary services under this program. Two hundred sixty-eight applications accepted for services have been rejected due to failure of the child to fall within the definition of a crippled child, or due to the inability of the applicant to establish financial need.

Having previously obtained medically verified diagnoses on over 4,000 crippled children in the state, the division contemplates completing a survey of all crippled children in the state with medical verification of diagnoses in order that data may be available as to the need for further extension of a program of services for crippled children.

We are pleased to report that the Division of Services for Crippled Children is operating with an administrative cost not to exceed ten per cent of total expenditures, and there is every indication that as the number of children to whom this division may render services increases, the administrative cost will show a proportionate decline.

In order to assist Doctor Greer in the matter of the location of crippled children, we recommend that the county medical societies extend to his division invitations to conduct diagnostic consultation services in your various counties.

Educational programs concerning the early diagnosis and prevention of crippling are sponsored by this division, and at your request speakers will be available to present symposia or conduct "wet" clinics for your county medical societies.

Your committee recommends that in instances where such action has not been taken, each county medical society shall appoint an advisory committee of not more than three members to cooperate with the county departments of public welfare in the matter of making recommendations as to whether individuals applying for necessary services shall be treated at public cost. We feel that such advisory committees could function in an invaluable capacity in directing the activities and thinking of the county departments of public welfare with relation to the crippled children coming under the services of county and state departments of public welfare. We would earnestly recommend that these appointed committees contact the county departments of public welfare offering to be of service, and such committees may also offer the same service to judges empowered to commit children to local public hospitals or to the Indiana University Hospitals. These appointed committees would be in a position to register complaints directly with the Director of this division or with this committee; and having interested themselves in this particular program, would be in a position to offer recommendations to this committee or to the Director of the Division in order that a more complete program of services might be effected for the needy crippled children of a given community.

A statistical analysis of the case load of this division leads us to believe that only crippled children who cannot be cared for in their own communities, and who are financially in need, are receiving services under the supervision of this division. We feel from our contact with the division that the county departments of public welfare are attempting to do a thorough job as to the evaluation of financial need, but must point out that for the county departments to do such a task with complete thoroughness it will require the cooperation of organized medicine in pointing out to the county departments the possible costs entailed in treating specific types of crippling defects.

In addition to utilizing the Indiana University Hospitals and the Hospital Center in South Bend, the division has completed plans for the establishment of a third center for the treatment of crippled children in the city of Fort Wayne. It is anticipated that such center will be in operation early during the month of November of this year.

We note that splendid work is being done by a staff of competent personnel in administering a program of

treatment and instruction for children afflicted with cerebral palsy. In view of the fact that some authorities express the opinion that there are equally as many crippled children afflicted with cerebral palsy as with anterior poliomyelitis, we feel that this service is meeting an important need which will be met with greater effectiveness as the program is developed.

The Division maintains a staff of orthopedic field nurses and field physical therapists who are at your service to assist in the solution of arranging for necessary nursing service or home physical therapy procedures.

We wish to point out that your Liaison Committee functions actually in the capacity of an advisory group to the Director of the Division of Services for Crippled Children, and recommendations made by this Committee are accepted in a most cooperative spirit.

We wholeheartedly commend to the House of Delegates the efforts of Doctor Greer in the administration of the activities of this division, which are conducted in a most ethical manner with highly qualified personnel, and we solicit your cooperation to assist him in making this program for the needy crippled children of Indiana one of the most outstanding in the country.

Respectfully submitted,

I. C. Barclay, M.D., Chairman  
Wayne R. Glock, M.D.  
Paul Johnson, M.D.  
J. H. Weinstein, M.D.  
John H. Green, M.D.  
L. A. Ensminger, M.D.  
Louis D. Belden, M.D.  
R. L. Sensenich, M.D.

**THE CHAIRMAN:** This report and the one in the handbook, on page 123, are referred to the Reference Committee on Public Policy and Legislation.

#### **AUDITING COMMITTEE**

Referred to the Council.

#### **COMMITTEE ON CONTROL OF CANCER**

Referred to Reference Committee on Hygiene and Public Health.

#### **COMMITTEE ON SYPHILIS CONTROL**

Referred to Reference Committee on Hygiene and Public Health.

#### **COMMITTEE ON OCCUPATIONAL DISEASES**

Referred to Reference Committee on Hygiene and Public Health.

#### **COMMITTEE TO STUDY CULTISTS AND IRREGULAR PRACTITIONERS**

**DR. ALFRED ELLISON:** The report of the Committee to Study Cultists and Irregular Practitioners appears in the handbook. We wish to focus attention on the following two paragraphs:

The rapid advancement of scientific knowledge in the past several years has created somewhat of a difficult situation for those practitioners graduating earlier. To keep up with the constantly advancing front of scientific knowledge has required a very considerable amount of application. Some of our members have fallen short of their obligation in this matter. This committee, therefore, urges continued efforts on the part of these men to better educate themselves and on the part of medical societies to promote postgraduate study. The expansion of such a program on the part of our state associa-

tion should receive the encouragement of every one of us.

The legal duty of prosecuting offenders of the medical practice act falls on the State Board of Medical Registration and Examination, usually. This board is handicapped in this activity by lack of an investigator to go from county to county to work up the cases in cooperation with the local prosecutors. The employment of such an investigator would be the most effective way to cope with these offenders. This board, however, is working under a great handicap because of lack of funds. According to the state law, its budget for any year cannot exceed its receipts for that year and its present receipts are no more sufficient than to meet clerical and board meeting expenses. Our profession should be interested in some way of increasing this board's revenue so that its function in these matters could be satisfactory.

**THE CHAIRMAN:** This report is referred to the Reference Committee on Public Policy and Legislation.

#### **COMMITTEE ON INDIANA INTER-PROFESSIONAL HEALTH COUNCIL**

Referred to Reference Committee on Miscellaneous Business.

#### **ANTI-TUBERCULOSIS COMMITTEE**

Referred to Reference Committee on Hygiene and Public Health.

#### **COMMITTEE ON CONSERVATION OF VISION**

Referred to Reference Committee on Hygiene and Public Health.

#### **PNEUMONIA COMMITTEE**

Referred to Reference Committee on Hygiene and Public Health.

#### **LIAISON COMMITTEE WITH INDIANA STATE DEPARTMENT OF PUBLIC WELFARE**

Referred to Reference Committee on Hygiene and Public Health.

#### **REPORT OF DIRECTOR OF RESEARCH ON SICKNESS INSURANCE**

Referred to Special Reference Committee on Health Insurance.

#### **REPORT OF DELEGATES TO THE A.M.A.**

Referred to Reference Committee on Reports of Officers.

#### **NEW BUSINESS**

**DR. H. J. NORTON:** I have two resolutions to present, one regarding the University hospitalization law, and the other concerning M-day.

"WHEREAS the Bartholomew County Medical Society feels that its resolution adopted July 14, 1939, favoring an amendment to the so-called University hospitalization law permitting the court to commit patients to any hospital that appears best for those concerned, is sound policy, and

"WHEREAS this sentiment has been largely concurred in by individual members, by other county medical societies, and by editorials and other expression in the Indiana State Medical Society,



"THEREFORE BE IT RESOLVED that the Indiana State Medical Society go on record as favoring amendments to the so-called University hospitalization law permitting the court to commit patients to any hospital that appears best for those concerned."

(Referred to Reference Committee on Public Policy and Legislation.)

"WHEREAS world-wide radical social change, instability, and a state of war exist among other nations, and

"WHEREAS these conditions threaten our nation and our American way of life, and

"WHEREAS the Indiana State Medical Association subscribing fully to the maintenance of peace and neutrality, believes that national unity and a prepared national defense offers the best manner for defending our nation and the American way of living against these conditions,

"THEREFORE BE IT RESOLVED that the Indiana State Medical Association constitute and empower a committee to act in liaison with proper military and civil authorities, and veterans' organizations to make a complete study for, and prepare a detailed program for medical cooperation and preparedness in the event of M-day becoming a reality, to the end that in such event an unhurried and effective program is established supplying first: the medical needs of the military; second: the proper medical care at home during a military emergency.

"AND BE IT FURTHER RESOLVED that copies of this resolution be sent to the American Medical Association and the various state medical organizations and that the delegates from Indiana be instructed to present a similar resolution at the next annual session of the American Medical Association to be held in New York, June 10-14, 1940."

(Referred to Reference Committee on Hygiene and Public Health.)

DR. W. A. THOMPSON presented the following three resolutions:

(1) *Resolution on Ophthalmia Neonatorum Prevention*

As it is recognized by the committee on the Conservation of Vision of the Indiana State Medical Association that a high incidence of ophthalmia neonatorum exists in Indiana, therefore,

BE IT RESOLVED, That the following recommendations, prepared by that committee, be adopted by the House of Delegates of the Indiana State Medical Association in order to reduce the incidence of this disease and so conserve vision of the citizens of our state:

- (1) That the question on the birth certificate "Were precautions taken against ophthalmia neonatorum" be changed to read, "What preventive for ophthalmia neonatorum did you use? If none, state the reason."
- (2) That legislation should be enacted specifying that only a prophylactic agent approved

by the Indiana State Board of Health shall be used.

- (3) That one percent (1%) silver nitrate be used in beeswax ampoules as a universal prophylactic agent for ophthalmia neonatorum at this time, with the reservation that this recommendation may be changed in the future.
- (4) That the Indiana State Board of Health shall acquaint physicians, individuals and hospitals with this recommendation to see that it is uniformly easily available.
- (5) That the Indiana State Board of Health shall carry on a campaign of urging the prompt and early reporting of ophthalmia neonatorum as the law now specifies.
- (6) That the Indiana State Board of Health, through the local health officers, shall ask the prompt reporting of conjunctivitis of the new-born from whatever organism, and shall have jurisdiction over these cases, in investigating and insuring adequate diagnosis and treatment until they are definitely classified as not being ophthalmia neonatorum. That investigation should be a direct responsibility of the Indiana State Board of Health and assured thereby.
- (7) That consultation with oculists be urged in these cases whenever such consultation is available. That provision be made for expert ophthalmological and nursing care whenever necessary, and that these services be arranged without delay and be available also for similar emergency cases occurring at a later age, and

BE IT FURTHER RESOLVED, That if these recommendations are adopted by the House of Delegates, they shall be transmitted to the Indiana State Board of Health, that legislation be enacted at the next session of the general assembly to strengthen the present ophthalmia neonatorum law according to the above recommendations, and that the delegates of the Indiana State Medical Association to the American Medical Association at the meeting to be held in New York, June 10-14, 1940, be instructed to present a resolution embodying similar recommendations to be adopted by the states throughout the nation.

(Referred to Reference Committee on Public Policy and Legislation.)

(2) *Resolution in regard to trachoma.*

Realizing the prevalence of trachoma in Indiana and its high incidence in the causation of blindness,

BE IT RESOLVED, by the House of Delegates, That the State Board of Health of Indiana shall be requested by the Indiana State Medical Association to carry on an active campaign against this communicable disease to try to eradicate it from the state. The laws relative to trachoma should be enforced with quarantine where necessary, to see that it is adequately treated and cured if possible.

(Referred to Reference Committee on Hygiene and Public Health.)

(3) *Recommendation in regard to continuity of Committee on Conservation of Vision.*

Realizing the importance of a continuity of policy for certain committees,

BE IT RESOLVED, by the House of Delegates of the Indiana State Medical Association, That the Committee on Conservation of Vision shall be a five-year committee, the incoming president shall be asked to appoint five members of this committee, one for a period of five years, one for a period of four years, one for a period of three years, one for a period of two years, and one for a period of one year; succeeding presidents shall appoint one member of this committee each year, and receive suggestions regarding these appointments by the recommendations of the Indiana Academy of Ophthalmology and Otolaryngology and the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association.

(Referred to Reference Committee on Amendments to Constitution and By-Laws.)

DR. E. O. ASHER introduced the following resolution:

"WHEREAS public employment of physicians and nurses has widely increased;

"WHEREAS there is an increase of migratory members of the medical and nursing professions;

"BE IT RESOLVED That the Indiana State Medical Association through its officers insist upon those various persons who are responsible for the employment of physicians and nurses for public work, determine that the physicians and nurses so employed be required to have a license to practice their profession in the State of Indiana; that each be required to be a citizen of the United States of America.

"AND BE IT FURTHER RESOLVED That the provision in the Constitution and By-Laws of the Indiana State Medical Association requiring that members of component county societies be legally licensed to practice medicine, be, and hereby is, construed and interpreted to mean legally licensed to practice medicine in the State of Indiana; and that this association and all component county societies shall be governed by this construction and interpretation of said provision."

(Referred to Reference Committee on Amendments to Constitution and By-Laws.)

DR. R. B. SMALLWOOD presented the following resolution:

"At the regular monthly meeting of the Lawrence County Medical Society October 4, 1939, it was voted that the following motion be presented to the House of Delegates of the Indiana State Medical Society at its meeting in Fort Wayne:

"That in the year the State Legislature meets the budget for clerical help be increased to cover the cost of sending to each county society the entire content of each bill relative to medical practice before the Legislature."

(Referred to Reference Committee on Public Policy and Legislation.)

DR. F. S. CROCKETT: A few years ago when I was a member of the State Board of Medical Registration and Examination I presented a resolution to this House of Delegates similar to the one I propose now:

"BE IT RESOLVED that the House of Delegates of the Indiana State Medical Association favor the enactment of a law requiring annual registration of all licentiates under the medical Practice Act and that the fee for such registration shall not exceed \$2.00."

(Referred to Reference Committee on Public Policy and Legislation.)

Dr. W. A. Thompson and Dr. R. A. Hedgcock discussed the Social Security Act in reference to the payment of medical fees for the care of those who receive old age pensions. As this was merely a matter of information no action was taken by the House of Delegates but the chairman suggested that Dr. Thompson and Dr. Hedgcock appear before the Reference Committee on Public Policy and Legislation and present their views on this question.

As there was no further new business, upon the usual motion, duly seconded, the first meeting of the House of Delegates adjourned to Thursday morning, October 12, 1939, at seven o'clock.

## HOUSE OF DELEGATES

(Fort Wayne Session, 1939)

### Second Meeting

The second meeting of the House of Delegates, a breakfast meeting, was held in the Chatterbox, Hotel Anthony, Fort Wayne, on Thursday, October 12, 1939, with the president, Dr. E. M. VanBuskirk, in the chair. The meeting was called to order at 7:45 a. m.

THE CHAIRMAN: While Dr. Carver is checking the attendance I will announce the following memorial committee in respect to Dr. Keeney: Drs. F. W. Cregor, Samuel Kennedy, J. E. Ferrell, Will Thompson, W. U. Kennedy and M. A. Austin. Will this committee please make its report today if possible?

Dr. W. F. Carver, chairman of the Credentials Committee, called the roll, which showed the following present:

	County
Allen:	M. B. Catlett, Fort Wayne Maurice R. Lohman, Fort Wayne William C. Wright, Fort Wayne
Bartholomew:	W. L. Green, Columbus
Boone:	E. A. Rainey, Lebanon
Carroll:	Charles C. Crampton, Delphi
Cass:	William E. Barnett, Logansport
Clark:	E. P. Buckley, Jeffersonville
Clay:	H. H. Ward, Coalbmont
Clinton:	Robert A. Hedgcock, Frankfort
Dearborn-Ohio:	C. F. Fletcher, Sunman
DeKalb:	J. W. Thomson, Garrett
Delaware-Blackford:	Clay A. Ball, Muncie
Elkhart:	A. C. Yoder, Goshen



Fayette-Franklin:	H. C. Metcalf, Connersville
Floyd:	P. H. Schoen, New Albany
Fountain-Warren:	Simeon Lambright, Covington
Fulton:	A. E. Stinson, Rochester
Gibson:	R. W. Wood, Princeton
Grant:	Russell W. Lavengood, Marion
Greene:	M. S. Mount, Bloomfield
Hancock:	J. E. Ferrell, Fortville
Harrison:	William E. Amy, Corydon
Hendricks:	O. T. Scamahorn, Pittsboro
Henry:	Walter M. Stout, Newcastle
Jackson:	H. P. Graessle, Seymour
Jay:	John Lansford, Redkey
Jefferson:	Nicholas A. Kremer, Madison
Johnson:	Oran A. Province, Franklin
Kosciusko:	Orville H. Richer, Warsaw
Lake:	N. K. Forster, Hammond
	C. M. Jones, Whiting
	T. W. Oberlin, Hammond
	P. Q. Row, Hammond
LaPorte:	J. N. Kelly, LaPorte
Lawrence:	R. B. Smallwood, Bedford
Madison:	C. V. Rozelle, Anderson
Marion:	E. O. Asher, New Augusta
	C. G. Culbertson, Indianapolis
	F. M. Gastineau, Indianapolis
	Ralph L. Lochry, Indianapolis
	H. G. Morgan, Indianapolis
	Henry F. Nolting, Indianapolis
	F. B. Ramsey, Indianapolis
	J. O. Ritchey, Indianapolis
	O. W. Sicks, Indianapolis
	Lacey L. Shuler, Indianapolis
	M. J. Spencer, Indianapolis
	C. A. Weller, Indianapolis
Marshall:	A. A. Thompson, Tyner
Monroe:	Robt E. Lyons, Jr., Bloomington
Montgomery:	T. Z. Ball, Crawfordsville
Noble:	W. F. Carver, Albion
Orange:	George Dillinger, French Lick
Pike:	T. R. Rice, Petersburg
Posey:	W. E. Jenkinson, Mt. Vernon
Randolph:	J. S. Robison, Winchester
Ripley:	George S. Row, Osgood
Rush:	Robert D. Spindler, Milroy
St. Joseph:	Erwin Blackburn, South Bend
	A. S. Giordano, South Bend
	M. D. Wygant, Mishawaka
Sullivan:	J. T. Oliphant, Farmersburg
Tippecanoe:	John C. Burkle, Lafayette
	O. L. McCay, Romney
Vanderburgh:	R. R. Aere, Evansville
	Minor Miller, Evansville
	Philip E. Yunker, Evansville
Vigo:	A. W. Cavins, Terre Haute
	Ernest O. Nay, Terre Haute
Wabash:	O. G. Brubaker, N. Manchester
Wayne-Union:	W. A. Thompson, Liberty
Whitley:	Paul A. Garber, South Whitley

#### Councilors

- 1st district—I. C. Barclay, Evansville  
 2nd district—H. C. Wadsworth, Washington  
 3rd district—William H. Garner, New Albany  
 4th district—Maurice E. McKain, Columbus  
 5th district—O. O. Alexander, Terre Haute  
 7th district—C. J. Clark, Indianapolis  
 8th district—M. A. Austin, Anderson  
 9th district—Floyd T. Romberger, Lafayette  
 10th district—James M. White, Gary  
 11th district—Ira E. Perry, North Manchester  
 12th district—A. Jerome Sparks, Fort Wayne  
 13th district—Alfred Ellison, South Bend

#### Past Presidents

- E. M. Shanklin, Hammond  
 Charles N. Combs, Terre Haute  
 F. W. Cregor, Indianapolis

- G. R. Daniels, Marion  
 F. S. Crockett, Lafayette  
 R. L. Sensenich, South Bend  
 Herman M. Baker, Evansville

#### Officers

- E. M. Van Buskirk, Fort Wayne, president  
 Karl R. Ruddell, Indianapolis, president-elect  
 A. F. Weyerbacher, Indianapolis, treasurer  
 T. A. Hendricks, executive secretary  
 Albert Stump, Indianapolis, attorney for association  
 D. F. Cameron, Fort Wayne, delegate to the A.M.A.  
 Norman M. Beatty, Indianapolis, alternate delegate to the A.M.A.

#### Guests

- W. U. Kennedy, Newcastle, Director of Research on Sickness Insurance for the Indiana State Medical Association  
 B. D. Myers, Bloomington, dean, Indiana University School of Medicine at Bloomington  
 Mr. Paul R. Waddell, South Bend, executive secretary, St. Joseph County Medical Society  
 Mr. Rollen Waterson, Hammond, executive secretary, Lake County Medical Society

Dr. Carver reported 92 voting members present.

**THE CHAIRMAN:** We have a quorum present so the House is open and ready for business. The first order of business will be election of officers. I will be glad to receive nominations for the office of president-elect.

#### ELECTION OF OFFICERS

##### *President-elect:*

Dr. O. O. Alexander nominated Dr. A. M. Mitchell of Terre Haute. Nomination seconded by Dr. J. T. Oliphant. Motion made by Dr. William C. Wright that the nominations be closed duly seconded and carried.

Dr. H. C. Wadsworth moved that the secretary cast the unanimous ballot of the House for Dr. Mitchell for president-elect. Motion seconded and carried, and ballot cast by the secretary for Dr. Mitchell for president-elect for 1940.

**THE CHAIRMAN:** I will appoint Dr. Alexander and Dr. Combs to bring Dr. Mitchell in.

Dr. Austin will read the resolution in regard to Dr. B. G. Keeney.

**DR. M. A. AUSTIN:** "Whereas the Supreme Creator has deemed it wise to terminate the life and activities of our esteemed friend and physician, Doctor Bayard G. Keeney, thereby creating a great loss to the profession and to his own community, we the undersigned committee, representing the Indiana State Medical Association, do hereby extend to Doctor Keeney's bereaved family our most sincere sympathy.

SAMUEL KENNEDY, M.D.,  
 J. E. FERRELL, M.D.,  
 WILL THOMPSON, M.D.,  
 W. U. KENNEDY, M.D.,  
 M. A. AUSTIN, M.D.,  
 F. W. CREGOR, M.D., *Chairman.*"

Dr. Cregor moved the adoption of this resolution. Motion seconded, and carried, and the House rose in tribute to Dr. Keeney.

**THE CHAIRMAN:** Gentlemen, your president-elect, Dr. Mitchell.

DR. A. M. MITCHELL: I have always felt and thought in my lifetime that the doctors were my best friends. I know it now. I am going to do the best I can for all of you. I am grateful, and thanks.

*Election of Treasurer:*

Dr. G. R. Daniels nominated Dr. A. F. Weyerbacher to succeed himself. It was unanimously moved and seconded that the nominations be closed and that the secretary cast the unanimous vote of the House for Dr. Weyerbacher for treasurer. Ballot cast by the secretary.

*Delegates to the American Medical Association:*

THE CHAIRMAN: The next order of business is the election of delegates to the American Medical Association. Holdover delegates and alternates are:

Delegates: H. G. Hamer, Indianapolis; George Dillinger, French Lick.

Alternates: W. F. Kelly, Indianapolis; A. S. Giordano, South Bend.

Delegates should be elected to succeed Dr. Don F. Cameron of Fort Wayne and Dr. F. S. Crockett of Lafayette.

Dr. M. R. Lohman nominated Dr. Don F. Cameron to succeed himself.

Dr. F. T. Romberger nominated Dr. F. S. Crockett to succeed himself.

Dr. G. R. Daniels moved that the nominations be closed and that the secretary cast the unanimous ballot of the House for Dr. Cameron and Dr. Crockett. Motion seconded and carried and ballot cast by the secretary for Dr. Cameron and Dr. Crockett for delegates to the American Medical Association to succeed themselves for the ensuing two years, that is, 1940 and 1941.

*Alternate Delegates to the American Medical Association:*

THE CHAIRMAN: Nominations are in order for alternate delegates to succeed Dr. Norman M. Beatty of Indianapolis and Dr. A. M. Mitchell of Terre Haute.

Dr. Minor Miller nominated Dr. A. M. Mitchell to succeed himself. Dr. H. G. Morgan nominated Dr. Norman M. Beatty to succeed himself. Dr. G. R. Daniels moved that the nominations be closed and that the secretary cast the unanimous ballot of the House for Dr. Mitchell and Dr. Beatty. Motion seconded and carried and ballot cast by the secretary for Dr. Mitchell and Dr. Beatty for alternate delegates to the American Medical Association to succeed themselves for 1940 and 1941.

**SELECTION OF MEETING PLACE FOR 1940**

DR. GEORGE DILLINGER: We want to invite you all to come back to French Lick next year. The difficulty that was brought out by the Council a couple of days ago has been ironed out. Rates will be essentially the same as two years ago, with one differentiation. That is, double rooms in the deluxe section will be \$8.00 instead of \$7.00. All other rooms will be \$7.00. Both the Orange County Medical Society and the Third District Medical

Society would like very much to entertain you.

DR. GEORGE DANIELS: I move we accept the invitation. (Motion seconded unanimously, and carried.)

THE CHAIRMAN: Dr. Myers wants to invite us to Bloomington for the 1941 or 1942 meeting. Dr. Myers.

DR. B. D. MYERS: I speak at this time at the courtesy of the president. We are building four new dormitories in Bloomington which will make a total of seven and which will give us a capacity of 1100 single beds on the campus. With the hotels, we can take care of 1500 persons, and of course the university buildings offer facilities for accommodating all of the meetings. I speak of the matter at this time because to meet with us you would have to meet at the interval between the spring semester and the summer session, that is the first week in June, or the interval between the summer session and the fall semester, the first week in September. I understand this will have to be brought before the Council. In order to bring this before the Council I extend to you this invitation at this time to meet with us at some early date.

*Election of Councilors:*

Reports were made concerning the election of councilors for the following districts:

Second District—Dr. H. C. Wadsworth, of Washington, re-elected.

Fifth District—Dr. O. O. Alexander, of Terre Haute, re-elected.

Eighth District—Dr. M. A. Austin, of Anderson, re-elected.

Eleventh District—The Eleventh District Medical Society will meet in Marion on October 18, at which time the councilor for the ensuing three years will be elected.

**REPORTS OF REFERENCE COMMITTEES**

**Sections and Section Work**

*House of Delegates,  
Indiana State Medical Association.*  
Gentlemen:

We had only two reports to consider, one on the program and one on the scientific exhibit. The program speaks for itself. It is well gotten up, well balanced, and the topics are very timely.

Your reference committee suggests that in the future scientific exhibits be placed in a more prominent part of the convention building. It is regrettable that the doctors do not have more time to devote to those exhibits as they are instructive and enlightening. We hope that in the future the Committee on Scientific Exhibits can arrange for more time for the doctors to spend in this department at our annual meeting.

P. H. SCHOEN, *Chairman*,  
O. L. MCCAY,  
M. D. WYGANT,  
R. W. WOOD,  
W. H. HARRISON.

Dr. Schoen moved the adoption of this report; motion seconded and carried.



### Rules and Order of Business

Dr. O. T. Scamahorn, chairman of this committee, reported that as no work had been assigned to his committee, the committee had no report to make.

### Medical Education and Hospitals

*House of Delegates,  
Indiana State Medical Association.*

Gentlemen:

Your reference committee on medical education and hospitals had referred to it only the report of the standing committee on Medical Education and Hospitals as printed in the handbook on pages 83 to 87 inclusive. Your reference committee is immediately impressed with the amount of earnest thought and time devoted by the committee, and in particular by its chairman, Herman Baker, to the subject of postgraduate education.

The matter of defraying the expenses of the committeemen for traveling is a matter involving finance, and as such, is a matter for action by the Council and a matter which cannot be acted upon by your reference committee.

Other than this one point, since the report recommends no immediate change in present policy, the reference committee recommends the adoption of the report as printed in the handbook.

O. O. ALEXANDER, *Chairman*,  
R. L. SENSENICH,  
M. B. CATLETT,  
WALTER M. STOUT,  
R. R. ACRE.

Dr. Alexander moved the adoption of this report; motion seconded and carried.

DR. F. W. CREGOR: I wish to make a motion the purpose of which is simply to change the name of a committee, and before we get into some discussions I would be very glad if I may read this motion and move its adoption.

"Mr. President and Members of the House of Delegates:

"At the meeting of the Committee on Occupational Diseases held Wednesday, October eleventh, at twelve-fifteen o'clock, your committee was shocked and grieved to learn of the death of a member of the committee, Dr. Bayard Keeney, so long an active and honored worker in the profession. We bow our heads in sorrow as does every other member of the association at the death of this colleague, so beloved.

"Your committee was addressed by Dr. Carl M. Peterson, secretary of the Council on Industrial Health of the American Medical Association, and Dr. Louis W. Spolyar, director of the Bureau of Industrial Hygiene of the Indiana State Board of Health. Dr. Peterson acquainted the committee with the developments along the lines of industrial health of the national association, speaking of the educational campaign in progress, the teaching of this subject in medical schools and in postgraduate assemblies, urging on the profession the necessity of preparation to meet the growing demands on it, and the coordi-

nation of this work in the profession through the county organizations.

"Dr. Spolyar enlightened the committee by a discussion of the subject of industrial hygiene as the result of exhaustive studies made by the Bureau in Indiana. The committee was of the opinion that this, as well as all other problems arising in medicine, could be best solved by making every effort to encourage every member to meet his professional public obligation, and, that that could best be done through the medical organization. It was the judgment of the committee that the name of the same be changed from the Committee on Occupational Diseases to the Committee on Industrial Health of the Indiana State Medical Association, thus conforming to the terminology of the American Medical Association.

"Mr. President, I wish to move the adoption of this report.

F. W. CREGOR, *Chairman*."

Dr. Cregor's motion was seconded by Dr. G. R. Daniels, and carried.

### Public Policy and Legislation

*House of Delegates,  
Indiana State Medical Association.*

Gentlemen:

#### Report of Committee on Public Policy and Legislation

We recommend the present law in regard to the State Board of Health.

We also recommend that the law for the registration of physicians be endorsed but that action be deferred for further investigation of the problems involved.

We suggest that for a period of one year the funds for investigation and prosecution of the irregulars be taken from the treasury of the state association.

We recommend the report on hospitalization insurance but with this emphasis—that hospitalization must be on an indemnity basis, and not a service basis, and we recommend that the latter be stricken from the report.

The balance of the report we highly recommend.

#### Report of Committee on Civic and Industrial Relations

No report.

#### Public Relations Committee

No report.

#### Committee on Veterans' Affairs

We recommend this report in its entirety.

#### State Board of Health Liaison Committee to Deal with Social Security Act

We recommend the adoption of this report.

#### Report of Subcommittee to Study Maternal Morbidity and Mortality Rates for Indiana

We recommend its adoption.

#### Report of the Liaison Committee with the Indiana Crippled Children's Bureau

We recommend the adoption of this report but with the added suggestion that a committee from

each county medical society be appointed to work in conjunction with the state committee.

**Report of Committee to Study Cultists and Irregular Practitioners**

We recommend the adoption of this report with the added suggestion that everyone read and study the same.

**The Resolution on Prevention of Ophthalmia Neonatorum**

Inasmuch as this resolution appears in the handbook as a part of the committee's report we feel that we do not have jurisdiction over same.

**The Resolution on Registration Law**

We feel that this subject has been dealt with and no need for report on this resolution.

**The Resolution on Sending Out Legislative Reports from the Legislative Committee**

We feel that this resolution should be rejected, the reason being that the legislative committee has been sending to the county societies these reports for some time.

J. E. FERRELL, *Chairman*,  
T. W. OBERLIN,  
A. A. THOMPSON,  
E. O. ASHER,  
A. J. SPARKS.

Dr. Ferrell moved the adoption of this report; motion seconded.

DR. F. S. CROCKETT: I wish Dr. Ferrell would re-read the particular part concerning hospital insurance schemes.

DR. FERRELL: "We recommend the report on hospitalization insurance but with this emphasis—that hospitalization must be on an indemnity basis, and not a service basis, and we recommend that the latter be stricken from the report."

DR. CROCKETT: If you limit the voluntary group hospitalization plan to the cash indemnity type you limit and place yourself into opposition to practically everything that is being done in the voluntary group hospitalization movement. Now, in my committee report—the reason why I pick this out—we take a different view point and if I allow this to go through it automatically cancels part of my report. There is no objection so far as the American Medical Association is concerned provided the service plan conforms to the ten points laid down by the American Medical Association at Cleveland a few years ago and provided they conform to the laws of the state. Why can't we broaden this thing, have that particular type of group hospitalization where a service is given instead of cash indemnity, but where we safeguard it so far as medical service is concerned. The important thing is that we do not want hospital plans to include medical care. If they are safeguarded in that respect there has been no objection in regard to these hospital plans. So I would move an amendment to this report.

(Dr. Crockett's motion to amend was seconded by Dr. Jon Kelly.)

DR. N. K. FORSTER: I would like to concur very heartily with what Dr. Crockett has said. I think we are going to run into a great deal of trouble with that particular phase and I certainly think that we should make it broad enough to conform with the suggestions laid down by the American Medical Association. As long as we are conforming with the state insurance rules and regulations we certainly can take care of it, without limiting it to indemnity.

DR. HERMAN BAKER: May I call attention to this House that we are already on record as favoring this form of service insurance and that the adoption of this report would put us in a position of reversing ourselves as to action taken last year, and it would also be very embarrassing to our Executive Committee and the Council who have gone along on this matter on the assumption that the Indiana State Medical Association did approve this plan.

DR. E. O. ASHER: I think there is a complete confusion as to what we mean in this discussion. The idea of our committee in eliminating the phrase in the report as we found it in the handbook was to liberalize the insurance plan which would include either a service plan or an indemnity plan.

DR. FERRELL: I shall read from the report of the legislative committee:

"A bill was introduced and passed the legislature but was not signed by the governor which would have permitted the operation of so-called non-profit hospitalization insurance plans. The House of Delegates at its meeting last year approved of hospital insurance, but the approval did not designate whether hospital insurance should be on an indemnity basis or a service basis. Hospitalization insurance on a service basis is fraught with the grave danger of growing into insurance covering many features of the actual practice of medicine with the attendant dangers of fee schedules and a lowered quality of medical service. Hospital insurance on an indemnity basis will meet the needs of those needing such insurance and yet not endanger the present practice of medicine. Therefore, your committee recommends to the House of Delegates that it re-endorse hospitalization insurance, but with the two following added qualifications: First, that it must be on an indemnity basis and not a service basis. Second, that any plan must be approved by and must operate under the jurisdiction of the Insurance Department of Indiana, in order to assure a proper financial stability."

The reason why we brought this up was just to conform to the report of the committee.

DR. CROCKETT: There seems to be some confusion because my committee had this referred to it and we reported upon it.

(Here again Dr. Ferrell read the section of his committee report regarding hospitalization insurance.)



THE CHAIRMAN: I don't believe that this committee has any jurisdiction over this and if nobody objects I will rule that out of this reference committee's report.

(The action of the chairman to delete the fourth paragraph of the report of the Reference Committee on Public Policy and Legislation was approved unanimously by the House.)

Following a lengthy discussion the recommendation of the reference committee "that the law for the registration of physicians be endorsed but that action be deferred for further investigation of the problems involved" was approved by the House of Delegates. (Because of the length of the discussion this is not carried in these minutes but copies of the discussion have been made and sent to all members of the House of Delegates.)

DR. R. B. SMALLWOOD: As I understand, the motion of the Lawrence County Medical Society is included in this report. The reference committee is mistaken when it says that the complete bills introduced in the legislature having to do with medical matters are sent to the county societies.

(The chairman called for a vote on the motion to adopt the report of the Reference Committee on Public Policy and Legislation. On voting, the report was adopted as a whole with the exception of the fourth paragraph concerning hospitalization insurance which was deleted.)

DR. E. M. SHANKLIN: Mr. Chairman, and members of the House: We have an emergency in connection with THE JOURNAL. Your Constitution provides that all papers presented before the annual meetings shall be the property of the association and shall be published in THE JOURNAL before they have been published elsewhere. One of our guest speakers, Dr. Edmund Keeney, was away on a vacation during the summer when Miss Toman advised him of this rule and before he saw her letter he had arranged to have his paper published in the Johns Hopkins Bulletin and to read the paper next month at the Southern Medical Association meeting. As I say, this is in the Constitution. We discussed this yesterday at a meeting of some members of the editorial board and ruled that it being a constitutional provision there was no "out" in the matter for us. Dr. Ferree had been asked by Dr. Keeney to pinch-hit for him and read his paper. Dr. Ferree contacted Dr. Keeney at Shelbyville yesterday evening and Dr. Keeney said that he was afraid it was too late to stop publication in the Hopkins Bulletin. Now, we don't know what to do. It was suggested by one of your officials this morning, not a member of the editorial board, that the paper be read by title this morning. I am concerned about what might happen if we make an exception in this case.

(Dr. Ira Perry moved that "the paper be left off the program." Motion seconded by Dr. Ferrell, and carried.)

DR. F. T. ROMBERGER: I would like to suggest that that motion be altered to include the phrase,

"Out of respect to the late Dr. Keeney." In other words, by honoring his father we also honor the son. It is also suggested that the secretary of the association write a letter to Dr. Keeney explaining this action.

(These suggestions were approved by unanimous consent.)

#### Publicity

*House of Delegates,  
Indiana State Medical Association.*  
Gentlemen:

Your committee wishes to commend heartily the work of the various county societies, the state society, and the American Medical Association for the work they are doing individually and collectively in furthering the cause of scientific medicine, the education of the profession, and in particular the education of the public. Efforts in the direction of public education have been tremendously increased by our profession during recent years and we believe rightly so. Fear and professional ethics no longer bar us from this important duty.

We wish to thank the State Fair Committee for their difficult job and the excellence of their exhibits. They need your support, in particular by your presence when at the fair.

Lastly, we wish to commend the Fort Wayne and Allen County Societies for their efforts in putting on the Hall of Health exhibit during the meeting of the state association.

CLAY A. BALL, *Chairman*,  
SIMEON LAMBRIGHT,  
A. E. STINSON,  
WILLIAM E. AMY,  
JOHN LANSFORD.

Dr. Ball moved the adoption of this report; motion duly seconded, and carried.

#### Hygiene and Public Health

*House of Delegates,  
Indiana State Medical Association.*  
Gentlemen:

The Committee on Hygiene and Public Health had the following committee reports referred to it: Study of High School Athletics, Mental Health, Prevention of Traffic Accidents, Control of Cancer, Syphilis Control, Occupational Diseases, Anti-Tuberculosis, Conservation of Vision, Pneumonia, and the report of the Liaison Committee with the Indiana State Department of Public Welfare. All of these committees deserve a great deal of credit and we wish to thank the several committees.

We also had referred to us for consideration the M-day resolution and the resolution regarding trachoma, both of which the committee approves.

Therefore, we move you that this whole job lot be adopted at this time.

G. R. DANIELS, *Chairman*,  
W. O. HILDEBRAND,  
W. L. GREEN,  
R. W. LAVENGOOD,  
C. C. CRAMPTON.

Dr. Daniels' motion was duly seconded and the report was adopted.

#### Amendments to Constitution and By-Laws

*House of Delegates,  
Indiana State Medical Association.*

Gentlemen:

We, the Committee on Constitution and By-Laws, do hereby recommend the adoption of the following:

- (1) That Article II of the Constitution of the Indiana State Medical Association be amended by striking out the words "to guard and foster the material interests of its members and".
- (2) The resolution of Doctor Will Thompson: "That the committee on Conservation of Vision shall be a five-year committee, the incoming president shall be asked to appoint five members of this committee, one for a period of five years, one for a period of four years, one for a period of three years, one for a period of two years, and one for a period of one year; succeeding presidents shall appoint one member to this committee each year, and receive suggestions regarding these appointments by the recommendations of the Indiana Academy of Ophthalmology and Otolaryngology and the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association."
- (3) The resolution of Dr. Asher: "That the provision in the Constitution and By-Laws of the Indiana State Medical Association requiring that members of component county societies be legally licensed to practice medicine, be, and hereby is, construed and interpreted to mean legally licensed to practice medicine in the State of Indiana; and that this association and all component county societies shall be governed by this construction and interpretation of said provision."

We further recommend:

- (1) That action on the Asher resolution regarding the migratory members of the medical and nursing profession, be indefinitely postponed because of possible conflict with the Constitution of the United States.
- (2) That the suggestion that Chapter IV, section 2, of the By-Laws of the Indiana State Medical Association be amended by striking out the period after the word "delegate" in line No. 8 of the said section, and substituting a comma therefor, and then adding after the comma the following: "except that where a component society is made up of physicians of more than one county, each county shall be entitled to at least one delegate to be selected by the physicians residing in such county," is sound, but another year's study should be given to this

and it should be brought before the House of Delegates at that time.

M. R. LOHMAN, *Chairman*,  
WILL THOMPSON,  
F. T. ROMBERGER,  
ALFRED ELLISON,  
A. M. HASEWINKLE.

Dr. Lohman moved the adoption of this report; motion seconded, and report adopted.

#### Reports of Officers

*House of Delegates,  
Indiana State Medical Association.*

Gentlemen:

Your Committee on Reports of Officers wishes to express its heartiest endorsement of the sentiments expressed in the splendid address of Dr. VanBuskirk before the society. Also it compliments Dr. Ruddell on his fine speech before the House of Delegates.

This committee believes that the society owes a deep debt of gratitude to all of its officers for their zeal and untiring service in behalf of organized medicine.

The committee wishes especially to mention the work of editor of THE JOURNAL and to express its appreciation for a fine publication.

We recommend the adoption of all of the reports of the officers as they appear in the handbook.

This committee has not considered that part of the supplementary report of the president of the Council which relates to a three-dollar raise in the annual dues, as this was to be referred back to the Council.

J. T. OLIPHANT, *Chairman*,  
H. P. GRAESSLE,  
A. C. YODER,  
MINOR MILLER,  
W. C. WRIGHT.

DR. OLIPHANT: I move the adoption of this report. (Motion seconded and carried.)

#### Credentials

DR. O. W. SICKS: We have no business on which to report.

#### Miscellaneous Business

*House of Delegates,  
Indiana State Medical Association.*

Gentlemen:

We congratulate the Committee on Arrangements for the annual meeting, and we appreciate in its entirety the labor that has occupied many hours during this last year.

Dr. James B. Maple as necrologist and historian has analyzed and recorded systematically and methodically his information and data. Any oversight in his records is not his but is due to the failure of the local medical society. We urge all state and county societies to cooperate in this work. The county secretary must not overlook any opportunity to inform Dr. Maple of details he must have to do the work he appears to love and enjoy.



The Secretaries' Conference has done much for both the local and state societies. Every secretary in the state should accept this conference as part of his annual work budget and make preparations to attend same. The mechanics of being a good county secretary are not necessarily born in a man. Much improvement in many secretaries can be traced to the conference. Much further help will be secured by secretaries taking their troubles to the conference round table.

Progress has been made by the Inter-Professional Health Council. The organization is finding itself and its functions. This reference committee suggests that future experience may add representation of other professions, such as lawyers, architects, sanitary engineers, ministers, etc.

We recommend the adoption of these reports as printed in the handbook.

H. C. WADSWORTH, *Chairman*,  
 PHILIP E. YUNKER,  
 S. M. COTTON,  
 IRA PERRY,  
 JOHN ROBISON.

DR. WADSWORTH: I move the adoption of this report. (Motion seconded and carried. The House gave a rising vote of appreciation to the Committee on Arrangements.)

DR. SMALLWOOD: I think that Dr. Maple has done a very fine work here and I have this suggestion to make from the floor, that Dr. Maple be given opportunity to bring Dr. Kemper's medical history up-to-date. (This suggestion was approved by unanimous consent.)

#### Special Committee on Health Insurance

*House of Delegates,*  
*Indiana State Medical Association.*  
 Gentlemen:

Your reference Committee on Health and Hospital Insurance has given careful study to the several committee reports referred to it for consideration.

The report of the Permanent Study Committee on Health Insurance and National Medical Situation reviews briefly the history of efforts to supply medical care to various groups of the population. It calls attention to the ever-increasing interest shown as indicated by the many new plans constantly presented to provide medical care on a local, statewide or national basis. At present there are 75 group hospitalization plans, 54 hospital insurance companies, 20 flat rate hospital plans, at least 2,000 industrial medical care services, at least 500 medical and hospital benefit organizations, 24 union sick benefit funds. In addition, physicians are operating more than 150 medical care plans with many more in contemplation. It is evident from this that the subject is one of increasing interest to the lay public, and the medical profession must adjust itself to the changing situation.

The national situation has changed somewhat recently in the particulars of proposed legislation

but there persists an evident determination to enact some form of legislation giving federal assistance to the states for the supplying of medical service to all or part of the population. We have been given some assurance that the new proposals will be written with the collaboration of the organized medical profession. Notwithstanding this promised change in attitude, we concur in the committee recommendation that we must continue to exert every effort to protect the public interest by insisting upon preserving our legitimate professional ideals.

In the matter of health insurance the Permanent Study Committee recommends: I, Adoption of plan for hospital and medical care; II, That the risk be carried with one or more established insurance companies until legislation is passed permitting non-profit organizations; III, That a committee be appointed to formulate a plan subject to approval by the Executive Committee and to put it in operation. We wish to commend this committee for the large amount of work covered by this report and the constructive nature of its recommendations. We find ourselves heartily in accord with the committee approval of those voluntary cash indemnity forms of group organizations for medical care and cash indemnity and service forms of hospital service where the patient's choice of physician and hospital is preserved.

Your reference committee is of the opinion however that no emergency exists requiring immediate action. We would propose that the committee continue this study having in view the probable legislation in the next session of the legislature in 1941. This committee should cooperate with the legislative committee and the Governor's committee.

(Dr. Crockett moved the adoption of this portion of the report. Motion seconded by Dr. Daniels, and carried.)

Your committee recommends the adoption of that portion of the Executive Committee's report on page 42 of the handbook entitled, "(C) Group Hospitalization," and wishes to lay special stress on the concluding statement of that section. "At the present time the Executive Committee feels that it would be much better to wait until the next session of the legislature and make sure that a correct non-profit enabling act is upon the statute books rather than have some 'make-shift' plan adopted which would prove in the long run to be unsound and unwise."

(Dr. Crockett moved the adoption of this section of the report. Motion seconded by Dr. Clark, and carried.)

Your committee recommends the adoption of that portion of the Executive Committee's report on page 43 of the handbook entitled, "(D) Sickness Insurance and Socialized Medicine." Your committee wishes to stress the thought in this paragraph that every physician keep himself informed on this subject through medical and lay journals.

(Dr. Crockett moved the adoption of this section of the report. Motion seconded by Dr. Daniels, and carried.)

Your committee recommends the adoption of that portion of the Executive Committee's report on page 44 of the handbook entitled, "(E) Director of Research on Sickness Insurance," and wishes to commend the action of the Executive Committee in its appointment of Dr. W. U. Kennedy of Newcastle as Director of Research on Sickness Insurance.

(Dr. Crockett moved the adoption of this section of the report. Motion seconded, and carried.)

Your reference committee recommends the approval of the supplementary report of the Executive Committee which asks reaffirmation of our endorsement of non-profit hospital insurance plans when properly safeguarded. Your reference committee believes that this endorsement should include non-profit medical care plans giving benefits in the form of cash indemnity and not medical service; such medical care plans to be in harmony with the rules laid down by the American Medical Association, the Indiana State Medical Association, and the laws of the State.

Your committee recommends the reaffirmation of the stand taken by the Indiana State Medical Association and the American Medical Association regarding hospital insurance plans—both the indemnity type and the service type, provided they are in harmony with the ten points adopted at the Cleveland meeting of the American Medical Association and conform to the laws of the State of Indiana.

I move the adoption of this section of the report. (Motion seconded, and carried.)

Referring to the report of the Director of Research, page 147 in the handbook, we do not believe this House should take any action on this matter until the state legislature has authorized the formation of non-profit associations for this or these purposes. We believe Dr. Kennedy should be continued as a research agent and again report to the next House of Delegates.

I move the adoption of this section of the report, and the adoption of the report as a whole. (Motion seconded by Dr. Daniels, and carried.)

F. S. CROCKETT, *Chairman*,  
HERMAN M. BAKER,  
C. M. JONES,  
GEORGE DILLINGER,  
JON KELLY.

#### UNFINISHED BUSINESS

##### Raise in Dues

DR. M. A. AUSTIN: Dr. Perry, at the meeting of the Council on Tuesday, made this motion which was seconded by Dr. White and Dr. Clark and passed: "I move that we recommend to the House of Delegates that there be a \$3.00 raise in our state dues, making them \$10.00 a year." It is necessary after you vote upon this resolution that this matter be acted upon by the Council before it

becomes effective. Under the circumstances we are bringing this matter to your attention for consideration at this time and then immediately after the adjournment of the House of Delegates the Council will take action according to what has been done by the House of Delegates, but the Council has gone into all the phases of the various things that have brought about the request for this \$3.00 increase and it feels that it should be granted to the association. These four things are facing us at the present time for which we need an additional amount of money for the state association: (1) Employment of additional assistant in THE JOURNAL office; (2) Additional help in the headquarters office; (3) The payment of committeemen's expenses, and (4) The payment of all expense incident to the annual session by the state association.

I move the adoption of this action and resolution of the Council concerning the raise of the dues to \$10.00 per year.

(Dr. Austin's motion was duly seconded, and carried by the House of Delegates.)

#### Supplementary Report of the Reference Committee on Public Policy and Legislation

DR. J. E. FERRELL: In making out our report we left out one very important resolution which should be acted upon:

"WHEREAS the Bartholomew County Medical Society feels that its resolution adopted July 14, 1939, favoring an amendment to the so-called University hospitalization law permitting the court to commit patients to any hospital that appears best for those concerned, is sound policy, and

"WHEREAS this sentiment has been largely concurred in by individual members, by other county medical societies, and by editorials and other expression in the Indiana State Medical Society,

"THEREFORE, BE IT RESOLVED, that the Indiana State Medical Society go on record as favoring amendments to the so-called University hospitalization law permitting the court to commit patients to any hospital that appears best for those concerned"

I move the adoption of this resolution. (Motion seconded, and carried.)

#### New Business

DR. H. G. MORGAN: In view of the fact that we have been very delightfully entertained during our stay in Fort Wayne due to the efforts of the membership of the Fort Wayne Medical Society, their wives and friends, and as the press has given us very fine publicity, of educational value, and last but not least, as our retiring president, Dr. Van Buskirk, has worked untiringly for the best interests of the profession, I move you that it is the sense of the Indiana State Medical Association that the sentiment of our appreciation and thanks be made a matter of record on the minutes, and that these various organizations, the press and persons be so notified. (Motion seconded, and carried.)

THE CHAIRMAN: Gentlemen and members of the House of Delegates: It gives me great pleasure to



pass this gavel on to such a worthy successor, Dr. Ruddell. (Applause.)

There being no further business, upon the motion of Dr. C. J. Clark, seconded by Dr. G. R. Daniels, the House of Delegates of the Indiana State Medical Association adjourned *sine die*.

#### INDIANA STATE MEDICAL ASSOCIATION General Meetings

##### First General Meeting, Wednesday, October 11, 1939

The first general meeting of the ninetieth annual session of the Indiana State Medical Association was called to order at 9:35 a.m., Wednesday, October eleventh, in the Shrine Theatre, Fort Wayne, by the president, Dr. E. M. Van Buskirk, of Fort Wayne.

Dr. Van Buskirk introduced Mayor Harry Baals, who welcomed the members to Fort Wayne.

Mr. Alva J. McAndless, president of the Lincoln Life Insurance Company, then was introduced by Dr. Van Buskirk, and he welcomed the members on behalf of the citizens of Fort Wayne.

Dr. Van Buskirk introduced Dr. L. W. Elston, president of the Fort Wayne Medical Society, Dr. M. R. Lohman, Dr. L. T. Rawles, and Dr. H. V. Blosser, co-chairmen of the committee on convention arrangements.

Dr. Elston made an announcement in regard to the Hall of Health display in the Allen County court house and urged attendance there.

Dr. Van Buskirk read his presidential address, after which he introduced the first speaker on the scientific program, Joseph Felsen, M.D., of New York City, whose subject was "The Newer Concepts of Intestinal Infection."

At this time, a minute of silence was requested by the presiding officer, Dr. Juan Rodriguez, in honor of Dr. B. G. Keeney of Shelbyville who had died suddenly, only a few minutes before, in the meeting hall.

Dr. Rodriguez then introduced Byrl R. Kirklin, M.D., Associate Professor of Radiology, University of Minnesota Graduate School. Dr. Kirklin's subject was "Some Contributions of the Roentgen Ray to Advances in Diagnosis." His talk was illustrated with lantern slides.

Dr. Frederick W. Clement of Toledo, Ohio, talked on "Post-Operative Pulmonary Complications" and Dr. Evan G. Galbraith, of Toledo, Ohio, followed with a paper on "Cause, Prevention and Treatment of Pulmonary Atelectasis."

Dr. Emmett F. Horine, Associate Professor of Medicine, School of Medicine, University of Louisville, Louisville, Kentucky, presented a paper on "Psychological Factors in Heart Disease."

The meeting adjourned at 12:45 p.m.

##### Second General Meeting, Thursday, October 12, 1939

The second general meeting was called to order at 9:30 a.m. by R. L. Hane, M.D., of Fort Wayne.

W. P. McNulty, D.D.S., president of the Isaac Knapp District Dental Society, introduced the

first speaker of the program, Joseph E. Schaefer, M.D., D.D.S., Chicago, who talked on "Oral and Plastic Surgery." His talk was illustrated with lantern slides.

Dr. Hane introduced Robert M. Moore, M.D., of Indianapolis, who in turn introduced Paul D. White, M.D., of Boston, Mass., who talked on "The Diagnosis and Treatment of Cardiovascular Emergencies."

The presiding officer announced at this time that the paper of Edmund L. Keeney, M.D., of Baltimore, Md., would not be presented.

Frank Ramsey, M.D., Indianapolis, took charge of the meeting at this time, and presented Henry B. Orton, M.D., of New York City and Newark, N. J., who presented a paper on "Bronchoscopy as an Aid to Treatment." His talk was illustrated with lantern slides.

Dr. Ramsey then introduced Willis C. Campbell, M.D., Memphis, Tenn., who presented a paper on "Internal Fixation of Fractures." Lantern slides were also used with this paper.

The meeting was adjourned at 12:30 p.m.

#### SECTION ON ANESTHESIA

The Section on Anesthesia was called to order at 2:15 p.m., Wednesday, October 11, 1939, by the chairman, Dr. Roy Geider, Indianapolis.

Dr. Frederick W. Clement, of Toledo, Ohio, presented a paper on "Endotracheal Anesthesia." Discussed by Dr. Lillian B. Mueller, Indianapolis; Dr. W. B. Adams, Indianapolis; Dr. E. T. Zaring, Terre Haute; and, in closing, by the essayist.

A paper entitled "Complications Following General Anesthesia" was presented by Dr. Fred A. Thomas, of Indianapolis. Discussed by Dr. Merrill E. Liston, South Bend.

Dr. E. T. Zaring, Terre Haute, presented a paper on "Who Should Choose the Anesthetic?" Discussed by Dr. F. T. Romberger, Lafayette.

The chairman then declared the meeting open to round table discussion. Dr. Charles N. Combs, Terre Haute, and Dr. A. W. Hull, Elkhart, made a few remarks.

The following section officers were elected for 1940:

Chairman, E. T. Zaring, M.D., Terre Haute.

Vice-chairman, Fred A. Thomas, M.D., Indianapolis.

Secretary, Lillian B. Mueller, M.D., Indianapolis.

#### SECTION ON MEDICINE

The Medical Section met in the Shrine Theater, Fort Wayne, Wednesday afternoon, October 11th, 1939. It was called to order at two o'clock by the Vice-Chairman, Dr. W. L. Porteus of Franklin.

Dr. E. V. Hahn and Dr. Paul Merrell, Indianapolis, presented a paper entitled "Diagnosis and Treatment of Peripheral Vascular Diseases."

Dr. Irvine H. Page and Dr. Kenneth G. Kohlstaedt, Indianapolis, presented a paper entitled "The Sulfapyridine Treatment of Pneumonia."

Dr. Robert V. Hoffman, South Bend, read a paper entitled "The Serum Treatment of Pneumonia."

Dr. Frank H. Green, Rushville, read a paper entitled "The Diagnosis and Medical Management of Ectopic Pregnancy."

At this point the audience stood in silence for one minute in memory of the Chairman of this Section, Dr. B. G. Keeney of Shelbyville, whose untimely death occurred Wednesday morning.

Election of officers of the Section resulted as follows:

Chairman—W. L. Portteus, M.D., Franklin.

Vice-Chairman—John Warvel, M.D., Indianapolis.

Secretary—James E. McMeel, South Bend.

Dr. Raphael Isaacs, Associate Professor of Internal Medicine, University of Michigan Medical School, Ann Arbor, Michigan (Guest), read a paper entitled "Diagnosis and Treatment of Pernicious Anemia."

Dr. Paul S. Johnson, Richmond, read a paper entitled "Fatigue: Its Causes and Treatment."

Dr. Robert G. Moore, Vincennes, read a paper entitled "The Heart Neuroses, Their Diagnosis and Treatment."

Dr. R. L. Sensenich, South Bend, read a paper entitled "Diagnosis and Treatment of Peptic Ulcer."

The Medical Section adjourned.

#### SECTION ON SURGERY

The Section on Surgery of the Indiana State Medical Association met in the Chamber of Commerce Building, Fort Wayne, on Wednesday afternoon, October 11, 1939. Dr. Frank Ramsey, Chairman, Indianapolis, presided. The meeting opened at 2:25 o'clock.

Dr. Ramsey presented the first speaker, Dr. Clair Ingalls, of Washington, who read a paper on "Specific Primary Peritonitis." Dr. Gerald Kempf, Indianapolis, opened the discussion and was followed by Dr. E. E. Padgett, Indianapolis; Dr. H. O. Bruggemann, Fort Wayne, and, in closing, by Dr. Ingalls.

The next paper, "Collapse Therapy of Pulmonary Tuberculosis," was read by Dr. Frank Jennings, of Oaklandon. Dr. Paul Crimm, of Evansville, discussed this paper and was followed by Dr. H. O. Bruggemann, Fort Wayne, and, in closing, by the essayist.

Dr. Ramsey asked Dr. William C. Wright, vice-chairman, to assume the chair.

Dr. Wright introduced Dr. M. S. Schulhof, of Muncie, who presented his paper, "Renal Anomalies from a Surgical Standpoint." This paper was discussed by Dr. L. G. Montgomery, of Muncie, and Dr. W. E. Tinney, Indianapolis.

Chairman Ramsey having resumed the chair, he introduced the guest speaker, Dr. Willis C. Campbell, of Memphis, Tennessee, who presented his paper, "Surgery of the Hip Joint." The paper was

discussed by Dr. L. A. Ensminger, of Indianapolis, Dr. A. F. Knoefel, of Terre Haute, and, in closing, by the essayist.

Officers of the section were elected:

Chairman—William C. Wright, Fort Wayne.

Vice-chairman—J. H. Clevenger, Muncie.

Secretary—Arnold Duemling, Fort Wayne.

The Section on Surgery adjourned at 5:15 p. m.

#### EXECUTIVE COMMITTEE

August 20, 1939.

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; E. M. VanBuskirk, M.D.; Karl Ruddell, M.D.; M. A. Austin, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Luncheon guest: C. E. Gillespie, M.D., Seymour.

The statements of Receipts and Expenditures for July for the Association committees and THE JOURNAL were approved.

#### Membership Report

Number of members Aug. 20, 1939	3,094
(96 honorary members)	
Number of members Aug. 20, 1938	3,041
Gain over last year	53
Number of members Dec. 31, 1938	3,087

#### Treasurer's Office

Dr. Weyerbacher made a report upon the Rokeby Liquidation Trust in which the Association holds a \$1,000 certificate. At one time the recommendation was made that the association mark this investment off the books but Dr. Weyerbacher reported that now the certificate is worth about \$25.00 on \$100.00 and that payments are being made from time to time. The report shows the apartment has better than a 97 per cent occupancy at the present time.

#### Legislative, Legal and Social Security Matters

##### National

*National situation.* A.M.A. demurrer to indictment upheld by Judge Proctor which means that the attorney general's complaint has been held to be not a cause of action against the association. Information is that the Government will take an appeal. According to Albert Stump, attorney for the association, Judge Proctor's decision leaves a way open for a civil suit to be brought against the officers of the District of Columbia Medical Society and the American Medical Association.

##### Local

(1) *Situation in regard to so-called Indiana University act, H. B. 74.*

a. Copy of a letter from Dr. R. B. Smallwood, chairman of the legislative committee of the Lawrence County Medical Society, to Dr. W. D. Gatch, dean, Indiana University School of Medicine, brought to the attention of the committee.

b. Letter addressed to Judge Earl Cox, Marion County Circuit Court, as head of the state organization of county judges, has not been answered, probably due to the fact that Judge Cox is on vacation.

c. Answer from Judge F. E. Gilkison of Shoals, differing from the opinion of the attorney general, brought to the attention of the committee and referred to Albert Stump.

d. Typical complaint by a physician against trustees under the old law was read to the committee. This complaint states that the trustee "for the most part is very cooperative with the physicians, but he admits that he is taking advantage of the loophole in the law that allows him to send patients to the state institutions,



thereby reducing the local township cost." The committee felt that because of this the new law which provides that the local unit rather than the state pay for such commitments is a step in the right direction.

e. Letter received from the secretary of the Tippecanoe County Medical Society stating that the situation was being taken care of in that county after a meeting had been held with the county judge.

f. Letter received from the Daviess-Martin County Medical Society stating that a resolution was passed by the county medical society favoring the repeal of the law created by H. B. 74. From information received from that county it was felt that this action was taken by the county society as, when the action was taken, the county society had the misconception that the new law made it mandatory for all indigent cases to be committed to the University hospitals, which of course is not the case.

g. Letter received from Paul Waddell, executive secretary of the St. Joseph County Medical Society, stating that the committee on medical care and hospitalization of the St. Joseph Society had resolved to ask the local judges for a consultation with the committee before any case is sent out of the county. The letter went on to say: "We feel that little difficulty will arise in this county in regard to this bill since:

1. The indigent is being cared for here under the regular machinery of the township trustee.

2. So far as we know no application has been made to date to a judge for admission to a hospital outside of the county."

- i. The Executive Committee frankly feels that a great deal of the misunderstanding which exists in regard to the provisions of the new act is due to a press dispatch, sent out from Bedford and published in the papers throughout Indiana, which stated that "The new law requires that all indigents needing medical care be sent to the University hospitals."

#### Farm Security Administration

(1) In accordance with instructions received from the committee at its last meeting, confidential information was requested as to how the Farm Security Administration plan was working in Daviess-Martin, Starke, Benton and Jennings counties and also in North Dakota. Letters were received and were brought to the attention of the committee.

(2) Letter received from Charles Nelson, executive secretary of the Ohio State Medical Association, asking for information as to how the plan in Indiana, where the Farm Security Administration funds to be used for medical services are pooled, is working out. Although the information upon the Farm Security plan is meager in Indiana because the plan has been in force in only a few counties and for such a short length of time, all data available was sent to Mr. Nelson.

(3) Letter received from F. V. Meriwether, assistant medical officer of the Farm Security Administration, giving the Farm Security Administration story of the North Dakota situation.

#### State Board of Medical Registration and Examination

Report in regard to Supreme Court decision in the Cole chiropractic case, written by Judge Curtis Shake, brought to the attention of the committee. The committee suggested that Albert Stump prepare a short statement concerning this case for publication in an early issue of THE JOURNAL.

Letter received from Dr. J. T. Oliphant, president, and Dr. J. W. Bowers, secretary of the State Board of Medical Registration and Examination, giving a review of the present situation of the Board, listing the handicaps under which the Board is conducting its affairs due to lack of funds, and containing a suggested remedy in order that the Board may better enforce the Medical Practice Act. Upon the motion of Dr. Ruddell, seconded by Dr. McCaskey, the headquarters office was instructed to send a copy of this statement to the delegates, county society secretaries, councilors, state officers, members of

the Committee to Study Cultists and Irregular Practitioners and members of the legislative committee of the Indiana State Medical Association.

#### Organization Matters

Announcement made that Paul R. Waddell had been named full-time secretary for the St. Joseph County Medical Society. (An introductory notice concerning Mr. Waddell appeared in the September issue of THE JOURNAL.)

Correspondence in regard to the suggestion that a joint meeting be held by the State Dental and State Medical Associations sometime in the future brought to the attention of the committee and the committee instructed the headquarters office to send this correspondence to Dr. F. S. Crockett, chairman of the Indiana Inter-Professional Health Council.

#### Group Hospitalization and Voluntary Health Insurance

Letter received from Ken Helsby, executive secretary of the Jackson County Medical Society (Missouri), in regard to "happenings in the field of group hospitalization this summer." According to the letter Iowa and Arkansas are under way with a statewide plan, Kansas and Oklahoma are definitely interested, and Texas has a bill drawn for presentation to the legislature, "now that the old Baylor Hospital plan has been absorbed by the statewide plan." The letter also stated, "We know of no plan in the Mississippi Valley that has encountered any financial difficulties at this time."

Letter received from R. H. Graham, executive secretary of the Oklahoma State Medical Association, stating that "there are 40 different kinds of non-profit insurance plans springing up in the State of Oklahoma at the present time."

Newspaper clippings in regard to the Associated Hospital Service plan in New York and the California plan brought to the attention of the committee.

The report of the Governor's Conference Committee is contained in the annual report of the Permanent Study Committee on Health Insurance and National Medical Situation of which Dr. N. K. Forster is chairman. Dr. Forster's report was adopted at a meeting of his committee on August 10 which was attended by most of the members of the Executive Committee.

Review of the New Jersey plan made by Dr. Nafe. Copies of the plan to be obtained and distributed to members of the committee.

#### Postgraduate

Report made upon first of the series of postgraduate meetings which was held at Evansville August 8. Arrangements have been made to hold one meeting a month for the next nine months. The headquarters office is sending bulletins to the doctors in that section of the state in regard to the meetings.

Dr. Nafe presented the recommendations which are to be considered by the Sub-Committee for the Study of the Standardization of Teachers' Training Institutions for Health Teaching (a part of the Governor's Health Council). These recommendations are not yet official and hence no action was called for from the Executive Committee upon them.

#### Medical Economics

Letter from H. W. Ginty, secretary of the Medical Protective Company, concerning the rates and the changes in the contract of that company, brought to the attention of the committee. This letter was received from Mr. Ginty in answer to a request from the Executive Committee for information concerning changes in the rates and the contract of the Medical Protective Company. Copies of this letter are to be made and supplied to the members of the committee, and the letter is to be given special study by Albert Stump, attorney for the association.

The following statement from R. G. Leland, M.D., director of the Bureau of Medical Economics of the American Medical Association, was brought to the attention of the Executive Committee:

"We (doctors) know that some form of socialized medicine is coming and our task is to help work out a sane, sensible program."

According to the Associated Press item from Memphis, Tennessee, July 19, Doctor Leland predicted that "socialized medicine" planks will be included in the platforms of both major parties in the 1940 presidential campaign. According to the dispatch Dr. Leland also stated that the medical profession is "opposed to setting up a huge health bureaucracy in Washington."

Letter of July 21 received from the officers of the Beauty Shop Owners of America, Inc., brought to the attention of the committee. This letter asked for an opinion as to whether or not the beauty operators should insist upon being examined by their own family physicians in order that a test case might be made concerning the constitutionality of the law. In answer to this communication the beauty operators were told that this subject would be discussed in the annual report of the Executive Committee which is to be made to the House of Delegates at Fort Wayne, and that the committee felt that the question of bringing a test case was of a legal and not of a medical nature and hence it was not within the province of the committee to make any suggestions concerning any actions that might be contemplated by the beauty shop owners organization. This letter was to be forwarded to Albert Stump for special study.

#### Indigent Sick

Letter received from Dr. J. I. Maris of Paoli complaining about the new WPA ruling. This ruling, according to the WPA authorities, is designed to make a more equitable distribution of WPA accident cases among the physicians. Dr. Maris' letter and the answer from M. R. Ray, state compensation officer, were forwarded to Dr. Olin West of the American Medical Association, and in his letter in reply Dr. West states:

"As a matter of fact, the order directing that there shall be an equitable distribution of medical services for the benefit of WPA workers among the physicians of an individual community is, as I understand it, exactly what physicians themselves have been demanding. You will recall one incident in your own state where considerable agitation was occasioned because of maldistribution whereby two or three men in a certain community received practically all the compensation that was allowed for medical relief service."

In accordance with their request, the headquarters office was instructed to invite Leo X. Smith, attorney, and Charles Dawson, secretary of the Township Trustees Association, to an Executive Committee meeting at a later date to discuss the medical care situation as it applies to the trustees and to the physicians.

#### Sickness Insurance and Socialized Medicine

(1) Clippings from the Tribune and New York Times showing how the New Zealand physicians are making a united protest against the socialized medicine program which has been undertaken in that country brought to the attention of the committee.

(2) Letter received from K. E. Miller, senior surgeon, United States Public Health Service, in answer to a communication from the state association offering to cooperate with the Federal Trade Commission. Dr. Miller said that he would be available to speak at the next meeting of the state association. The program for this meeting however is filled and the committee suggested that his communication be sent to Dr. R. L. Hane, chairman of the Secretaries' Conference, with the suggestion that Dr. Miller be considered as a possible speaker for the next secretaries' conference.

#### Case Reports

Letter received from Mrs. Genevieve W. Mason, Westport, Connecticut, in regard to the "great loss to the profession in the lack of a properly edited clearing house

for case reports." The committee suggested that this letter be forwarded to Dr. West for the consideration of the American Medical Association.

#### Negro Physicians

Communication received from the American Medical Association concerning Negro physicians. This communication was turned over to a member of the committee for further study and a report back at the next meeting.

#### United States Pharmacopoeial 1940 Convention

Information in regard to the United States Pharmacopoeial convention to be held in Washington, D.C., May 14, 1940, brought to the attention of the committee and correspondence turned over to Dr. Nafe for study and report at the next meeting of the committee.

#### The Journal

The National Tuberculosis Association request for donation of advertising space in the December JOURNAL approved by the committee. This is in accordance with past practice.

Copies of a letter received from Will C. Braun, business manager of the American Medical Association, were sent to the members of the Executive Committee. This letter tells of the increasing difficulty in obtaining prospects for advertising in the State JOURNAL due to direct mail campaigns and the increased use of the radio as an advertising medium. A copy of this letter also was sent to Dr. R. L. Sensenich, a member of the Board of Trustees of the A.M.A.

#### ELEVENTH INDIANA COUNCILOR DISTRICT

One of the best attended and most enthusiastic meetings of the Eleventh Councilor District Medical Society was held October eighteenth at Marion with headquarters in the Spencer Hotel.

Dr. M. A. Austin of Anderson and Dr. Karl Ruddell of Indianapolis were guest speakers.

Dr. Ira E. Perry of North Manchester was unanimously re-elected councilor for another term of three years.

The next meeting of the society will be held in Huntington, May 15, 1940.

At the morning session, from ten to twelve o'clock, a clinic was held at the Marion General Hospital in charge of Dr. Allison Miller. Dr. Quintman U. Newell, clinical professor of Obstetrics and Gynecology at Washington University, St. Louis, conducted the clinic. Fifty-one were in attendance at the clinic.

The afternoon session began with a business meeting at two o'clock. The scientific program followed, and was held at the Spencer Hotel, with ninety-seven in attendance. The program was as follows:

Dr. C. J. Clark, Indianapolis, presented a paper on "Sulfapyridine and Allied Therapy in Treatment of Pneumonia."

Dr. Charles L. Wise of Camden talked on "Is Convalescent Serum of Value?"

Dr. Carl P. Huber, of Indianapolis, presented a paper on "Recent Trends in the Investigation and Treatment of Sterility."

Representatives from the Indiana State Medical Association made brief comments.

A banquet was served at six o'clock, following which Dr. Newell read a paper.

Ladies who attended the meeting were entertained in the afternoon by a talk on art by Mr. Randolph Coats, Indiana artist. At four o'clock tea was served, and they joined the physicians for the turkey banquet at six o'clock.

O. G. BRUBAKER, M.D., *Secretary*.



# WOMAN'S AUXILIARY

## INDIANA STATE MEDICAL ASSOCIATION

### State Officers 1939-1940

*President*—Mrs. W. E. Tinney, 3902 Carrollton Ave., Indianapolis.

*President-Elect*—Mrs. C. L. Bock, R. R. No. 5, Muncie.

*First Vice-Pres.*—Mrs. E. O. Nay, 29 S. 20th St., Terre Haute.

*Second Vice-Pres.*—Mrs. Geo. Dillinger, French Lick.

*Third Vice-Pres.*—Mrs. E. M. Van Buskirk, 920 Maxine Drive, Ft. Wayne.

*Fourth Vice-Pres.*—Mrs. Arthur J. Steffen, Wabash.

*Corresponding Secretary*—Mrs. Byron K. Rust, 711 E. 58th St., Indianapolis.

*Recording Secretary*—Mrs. Harry Hellman, 1428 E. Washington, South Bend.

*Treasurer*—Mrs. C. V. Rozelle, 202 Beverly Terrace, Anderson.

*Councilor*—Mrs. M. B. Van Cleave, 505 S. 4th St., Terre Haute.

*Parliamentarian*—Mrs. C. F. Voyles, 4150 N. Meridian St., Indianapolis.

*Historian*—Mrs. U. G. Poland, 303 E. Washington, Muncie.

### Committee Chairmen:

*Archives*—Mrs. W. M. Davidson, 810 E. Powell Ave., Evansville.

*Exhibits*—Mrs. G. W. Seward, 205 E. 4th St., North Manchester.

*Hygeia*—Mrs. J. W. Emhardt, 5424 Washington Blvd., Indianapolis.

*Legislation*—Mrs. V. K. Harvey, 6206 Park Ave., Indianapolis.

*Organization*—Mrs. F. B. Wishard, Pendleton.

*Program*—Mrs. E. N. Mendenhall, 232 S. Cornell Circle, Ft. Wayne.

*Press and Publicity*—Mrs. Clifford Taylor, Chairman, 4257 Graceland Ave., Indianapolis; Mrs. R. D. Howell, 5314 Guilford Ave., Indianapolis; Mrs. Emmett B. Lamb, 1461 N. Alabama St., Indianapolis.

*Public Relations*—Mrs. J. W. Baxter, Jr., 426 Woodrow Ave., New Albany.

*Pioneer Memorial*—Mrs. O. G. Pfaff, 1222 N. Pennsylvania St., Indianapolis.

On October 10th, 11th, and 12th, the Allen County unit of the Woman's Auxiliary to the Indiana State Medical Association was hostess to about 300 doctors' wives and families from over the state, at the 11th annual convention of the Auxiliary held in Ft. Wayne. Although this unit is the youngest of the ten Indiana auxiliaries, having been organized in May of this year, its warm hospitality will ever be an inspiration to those who attended.

The program for the entertainment of guests, which included a tea and style show, a dinner, a breakfast, and a tour and tea, came to life in a glowing and artistic manner under the direction of the convention chairman, Mrs. E. M. Van Buskirk. Tribute should also be paid to Mrs. Herbert Ray, president of the Allen County Auxiliary, and the committee members: Mrs. M. R. Lohman, Mrs. L. W. Elston, Mrs. Edgar Mendenhall, Mrs. J. R. Adams, Mrs. W. E. Thornton, Mrs. Jerome Sparks, Mrs. H. C. McAllister, Mrs. R. L. Hane, and Dr. Jessie Calvin.

High lights of the program were: the after dinner entertainment, provided by Mrs. Alan Chambers, a talented member of the Allen County

Auxiliary who costumed as a Hindu Mystic Seer, answered the questions of her audience; the "Women's Medical Auxiliary Collect, a prayer written for the Auxiliary by Mrs. Herbert Ray, and read by all present at the breakfast; the illustrated lecture by Dr. Edgar Kiser, guest speaker at the breakfast meeting, on the "History of Medicine," the talk about Mary Todd Lincoln at the Lincoln Life Insurance Building, by Dr. Lewis A. Warren, and the visit to the Lincoln Museum there.

The annual general business session of the Women's Auxiliary to the Indiana State Medical Association was held following the state breakfast on Wednesday, October 11th, Mrs. M. B. Van Cleave of Terre Haute, state president, presiding.

*In memoriam*—Mrs. Wm. F. Hughes, of Indianapolis, gave a memorial tribute to Mrs. Harry Jacobs, of Indianapolis, a deceased member.

*Recording secretary*, Mrs. J. W. Baxter, of New Albany, Indiana, read the minutes of the executive meeting of the State Board held in Indianapolis on January 20, 1939. Reports of officers and committee chairmen were given. Dr. V. K. Harvey, of Indianapolis, secretary of the State Board of Health, gave a talk at that meeting on "Medical Legislation and Public Health." The functions of the Auxiliary as stated by the National President of the Auxiliary were: to do work approved by the American Medical Association; to interpret the aims of the medical profession through speakers, etc.; to assist at entertainment of doctors' families at the state Medical Convention; to promote good feeling among families of doctors.

*Financial report* for October, 1938, to October, 1939, given by Mrs. C. L. Bock, of Muncie, treasurer:

Total receipts	\$391.45
Total disbursements	216.27

Balance on hand-----\$175.18

Auditing committee: Mrs. F. B. Wishard, of Pendleton, and Mrs. F. R. Owens, of Muncie.

There were 421 paid members of the Women's Auxiliary last year.

*Parliamentarian*—In absence of Mrs. Charles Voyles, of Indianapolis, Mrs. F. B. Wishard, of Pendleton, read the constitution and by-laws, and offered Amendments which were voted upon.

*Legislation*: Mrs. V. K. Harvey, of Indianapolis, reported that the legislative committee was not asked for any activity the last year. The work was confined to informing members of the organization by speakers from the medical association.

*Program*: Mrs. E. O. Nay, of Terre Haute, reported the distribution of literature suggesting programs to all units. These suggestions stressed study groups and emphasized the promotion of health education.

*Press and Publicity*: Mrs. Wm. F. Hughes, chairman, reported nine issues of articles to THE JOURNAL, and two issues of News Letters—a total

of 1500 copies were sent to all members in the state, and national, state, and county executives of the Auxiliary, and Medical Societies.

The *Historian*, Mrs. U. G. Poland, of Muncie, reported that our newest Woman's Auxiliary to the Allen County Medical Society began with a large membership. The reports from the other nine auxiliaries all denote an unusual enthusiasm in the work of our organization to further the aims and purposes of the local, state and national medical societies in every way possible.

The ways used in the various organizations are most interesting, such as buying books for a tuberculosis hospital, student loan fund for physician's children, supply instructor for occupational therapy room in the hospital, use of film "Typing Pneumonia," and ten dollars to an Indianapolis chapter for cancer control.

Radio programs have been broadcast and one organization supplied a fifteen minute program every three months.

One organization furnished either a book or a magazine for the medical library of the hospital. They also bought a call-board to be used during the medical meetings in the hotel. Another organization staged a play "Medical Widows' Follies." They also had a public relations tea in a downtown auditorium, when the chief of the Bureau of Food and Drugs spoke on "Sanitation of Public Eating Houses" and a physician spoke on "Scientific Control of Disease."

Nearly all organizations did handwork for the hospitals, had talks by physicians, and luncheons and bridge meetings to encourage the social activities and promote good fellowship.

All seem to be promoting the subscriptions to *Hygeia*. Our chairman of *Hygeia*, Mrs. C. E. Ragan, stresses the reliability of its news, written by noted physicians, teachers, child psychologists and nurses. In the sale of this health magazine, we enlighten the public on health problems and gain their help in promoting health laws and enforcing those already made. Many of the organizations are placing *Hygeia* in public and parochial schools, libraries, and waiting rooms.

The visits of the state officers to the auxiliaries stimulated the organizations to greater interest and activity.

Mrs. O. G. Pfaff, chairman of the Pioneer Memorial Committee, in her report in the Hoosier News Letter, expressed "her pleasure in her work with Dr. W. N. Wishard, honoring the heroes and heroines of pioneer medicine. His recollection went back to the days of John Stough Bobbs, who performed the first operation in the world for gall stones in June, 1867, in Indianapolis. The committee hopes to have bronze tablets placed in the Medical School library for Dr. Bobbs, Jane Todd Crawford, buried near Sullivan, Indiana, operated on for ovarian tumor by Dr. Ephraim McDowell in 1809, and Dr. John L. Richmond, who did the first Cesarean operation west of the Alle-

ghenies in 1827. They also plan to mark the highways, designating where the graves are located and erecting stones at the graves, telling of their service to mankind.

We have been honored in the selection of our Mrs. Maurice B. VanCleave of Terre Haute to be the national third vice-president for the coming year.

*Organization:* The report by Mrs. John Carmack shows the loss of the Dubois County Auxiliary with 15 members, and the gain of the Allen County Auxiliary with 83 members.

*Public Relations:* Mrs. George Dillinger, as chairman, reported: "Mrs. C. C. Tomlinson, our National President this last year, has said: 'One of the important functions of the Auxiliary is to help create and maintain contacts between the Medical Profession and the public. Each member of the Auxiliary should be well informed on problems facing the profession so that she may be in a position to discuss, calmly and intelligently the various questions which arise in lay organizations.' This summarizes our Public Relations work."

In accordance with our National Public Relations chairman, Mrs. Henry Raile, Salt Lake City, Utah, we have emphasized a two point program:

1. Self-stocktaking—giving attention to our program of study, informing ourselves, and equipping ourselves for our tasks.

2. The Delivery to the Public—a wealth of information is ours to dispense, but intelligence, tact, and understanding are required to make it most effective.

The committee urged the auxiliaries:

1. To study the Indiana plan and to use the topic-of-the-month in their study programs.

2. To keep scrapbooks of press notices in which the names of doctors were used—also clippings on their Public Relations work.

3. To hold, if possible, a "Hospital Day" in their community when the hospital would be open to the public, the members of the auxiliary co-operating with the members of the hospital staff in explaining the facilities of the hospital to visitors.

Lists giving the names of Auxiliary members and the organizations to which they belong were collected and given over to the Chairman of the Legislation Committee of the State Medical Association for future help.

*County Reports:* See the historian's report, which summarizes the reports of work of the counties. Several counties had splendid posters depicting their work on display.

*Report of the National Convention:* Mrs. George Dillinger reported that the Indiana Auxiliary had a splendid exhibit. She expressed the hope that a large delegation from Indiana would be present at the A.M.A. Convention in New York in May, 1940, to support Mrs. M. B. Van Cleave of Terre Haute, the new national third vice-president.



Mrs. Van Cleave, the retiring state president, stated: "This year we have studied to become an informed womanhood, to broadcast health education, and to broaden our views to the realization that the crowning glory is service." She expressed her appreciation of her opportunity for service to the organization, and her thanks to county units and to the state board for their splendid work. She commented that "in meeting together we must develop our mutual hopes and aspirations in an atmosphere of friendliness and good cheer—our hostess auxiliary created this atmosphere and we enjoyed every breath of it." She wished them a successful year.

Mrs. W. E. Tinney, of Indianapolis, the new state president, responded by expressing her thanks for the confidence shown in her election as president. "I promise you this shall be regarded as no mere honorary office by myself, but shall be one to which all my energies are devoted that I may meet your expectations and those of the Medical Association, and to the best of my ability further the interests of this Auxiliary.

"My goal for this year is an active, informed auxiliary membership—one which in every day life and in its social contacts, is constantly alert and competent to profit by every opportunity to help form public opinion against socialized medicine. It must be pointed out that preventative medicine, not mere spending of money, is to the better interests of the public. The public must be made to realize that there is no such thing as 'free' medicine and that anything referred to as such is paid for in added taxation. In relation to this the individual auxiliaries must be prepared to furnish Health Speakers from their Medical Speakers Bureau for lay organizations.

"I also want to pledge you that anything you or your auxiliary may be asked to do will be authorized or approved by the State Medical Advisory Board."

The new state board held a meeting following the session at which Mrs. Tinney announced a state executive meeting in the Harrison Room of the Columbia Club, November 2, at 11 a.m. The luncheon will be 75c. All members of all county boards are expected to attend.

### LOCAL SOCIETY REPORTS

**Dearborn-Ohio County Medical Society** held a meeting at Aurora, September twenty-eighth. Mr. Griffin of Indianapolis and Mr. Mahan of Pendleton presented the "Classification Program in Penal Institutions." Attendance numbered fifteen.

**Fayette-Franklin County Medical Society** met at Orange, Indiana, July eighteenth, with thirteen present. The meeting was held at the residence of Dr. W. R. Phillips.

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**Fayette-Franklin County Medical Society** held a meeting at Magnesia Springs, September twelfth. Dr. C. H. McCaskey of Indianapolis was guest speaker. His subject was "Some Problems Facing the Medical Profession." Attendance numbered seven.

\* \* \*

**Fort Wayne Medical Society** met in the Chamber of Commerce Building, Fort Wayne, September 26. Case reports were presented by Drs. A. C. Bartholomew, R. W. Wilkins and D. F. Cameron. Dr. C. B. Parker was elected to the Board of Trustees.

\* \* \*

**Fort Wayne Medical Society** met at the Chamber of Commerce Building, October third. Papers were presented by Dr. L. L. Eberhart of Angola on "Treatment of Hip Fractures by Internal Fixation," Dr. Max Gitlin of Bluffton on "Undulant Fever," and Dr. T. O. Dorrance of Bluffton on "Scurvy in Infants." Attendance numbered fifty-seven.

\* \* \*

**Fountain-Warren County Medical Society** members met at Kingman, October sixth, for a dinner and social meeting, with twenty-nine members present. Dr. J. O. Ritchey of Indianapolis was the guest speaker, his subject being "Goiter."

\* \* \*

**Gibson County Medical Society** members held a meeting at Princeton, October sixteenth, to hear Dr. William C. Caldwell, of Evansville, talk on "The Acute Abdomen." Attendance numbered seventeen.

\* \* \*

**Grant County Medical Society** met at the Marion Hotel, September 28, 1939, for a dinner meeting. Thirty members and six guests were present. Dr.

Clopton was made a member of the society. Dr. R. A. Austin was the speaker, his subject being "Surgical and Medical Diseases of the Female Breast." He also gave a short talk upon the fascial transplants and inguinal hernia. Both subjects were illustrated with moving pictures taken and shown by Dr. Edgar Braunlin of Dayton, Ohio.

\* \* \*

**Hendricks County Medical Society** met at Danville, September twenty-eighth, with Dr. Charles R. Bird of Indianapolis as guest speaker. Dr. Bird's subject was "Diagnosis of Psychoneurosis." Twelve members and several guests were present. A chicken dinner was served.

\* \* \*

**Henry County Medical Society** members had a pig roast and get-together for nurses and doctors at George Itermann's farm, September twelfth, with 125 in attendance. On September twenty-fifth, the medical society and the Henry County hospital staff held a meeting for presentation of cases. Twenty were in attendance.

The Henry county society has three new members: Dr. Homer L. Life, Dr. Arthur B. Burnett, and Dr. J. S. McElroy.

\* \* \*

**Kosciusko County Medical Society** members met at North Webster, June thirteenth, to hear Dr. George L. Kress, of Warsaw, talk on "The Menopause and the Hormones."

\* \* \*

**LaPorte County Medical Society** met in the Spaulding Hotel, Michigan City, September twenty-first. Mr. R. W. Waterson, executive secretary for the Lake

(Continued on page xxii.)

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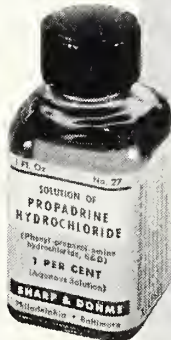
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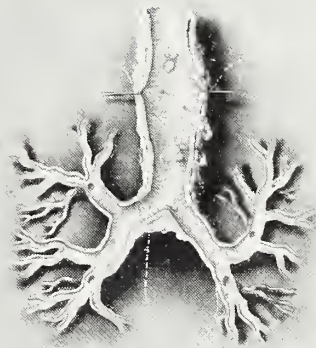
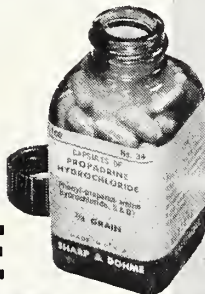
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County Medical Society talked on "A Layman Looks at Medical Practice." Attendance numbered twelve.

\* \* \*

Monroe County Medical Society members held a meeting at Bloomington, September twenty-seventh. Dr. Neal E. Baxter discussed the syphilis clinic at a business session of the society, and a report on the incorporation of the society was made by Dr. P. T. Holland. Dr. L. C. Robbins discussed the local health unit.

\* \* \*

Montgomery County Medical Society members met at Culver Hospital, September twenty-first. Dr. George Bond of Indianapolis was guest speaker. His subject was "Coronary Disease." Twenty members were present.

Orange County Medical Society held a business meeting at West Baden Springs Hotel in West Baden, October third, with Dr. William N. Garner of New Albany, councilor for the Third District, and Dr. Anderson, district public health office, as guests.

\* \* \*

Randolph County Medical Society met in Winchester at the Randolph County Hospital, October ninth. Case reports were presented by members.

\* \* \*

Shelby County Medical Society members met at the Major Hospital in Shelbyville, October fourth, to hear Dr. Matthew Winters of Indianapolis talk on "Diarrheas in Infancy," and Dr. Charles Thompson of Indianapolis talk on "Causes of Delayed Walking." Attendance numbered eighteen.

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**Tri-County Medical Society** held a meeting at Washington, Indiana, August twenty-second, with fifty-five in attendance. An annual social dinner meeting for doctors and their wives was enjoyed.

\* \* \*

**Tri-County Medical Society** held a meeting September 26, at Loogootee, with twenty in attendance. Dr. Briscoe Lett talked on "Typhoid Fever." This was a dinner meeting. A demonstration of Roger Anderson fracture equipment was presented.

\* \* \*

**Vanderburgh County Medical Society** held a meeting at Evansville, September nineteenth, with Dr. A. G. Mitchell of Cincinnati as guest speaker. Attendance numbered sixty. This was a combined meeting with the postgraduate presentation.

\* \* \*

**Wayne-Union County Medical Society** held a meeting at the Leland Hotel in Richmond, October twelfth. Dr. J. M. Ruegesegger of Cincinnati talked on "Sulfapyridine and Related Chemical Compounds in the Treatment of Pneumonia." Attendance numbered twenty-eight.

\* \* \*

**Whitley County Medical Society** members held a meeting at Columbia City, August eighth, with Dr. A. N. Ferguson of Fort Wayne as principal speaker. Dr. Ferguson's subject was "Heart Disease."

\* \* \*

#### VANDERBURGH POST GRADUATE COURSE

There were forty physicians registered for the morning and afternoon sessions of the Tuberculosis School and Post-Graduate Course at Boehne Tuberculosis Hospital in Evansville, October seventeenth. Eighty-six registered for the dinner and evening session.

Dr. Richard M. Davison of Chicago was the evening speaker.

#### ABSTRACT

#### JOURNAL DISCUSSES APPARENT INCREASE IN CORONARY OCCLUSION DEATHS

The increase in the number of deaths attributed to coronary occlusion (obstruction, by formation of a clot, in a branch of the arteries supplying the blood to the heart muscle) probably is mainly due to improvement in diagnosis rather than any increased incidence, *The Journal of the American Medical Association* for Aug. 12 declares in an editorial.

"O. F. Hedley has recently analyzed 5,116 deaths in the five year period ended Dec. 31, 1937, reported by the medical profession of Philadelphia as due to acute coronary occlusion," the editorial states. "During this period the total mortality attributed to this cause increased more than 125 per cent in Philadelphia.

"In spite of the great increase in the number of deaths from coronary occlusion, however, the age distribution by decades and the mean age at death remains practically the same for all the years in the period under study. Hence it is concluded that the increase in deaths from

acute coronary occlusion cannot be attributed to a tendency to report deaths among the very old as due to this cause. The ratio of males to females was approximately two to one. The mean age at death among all cases was 61.2 years. Further, the mean age at death and age distribution by age decades indicated that deaths among white females occurred at considerably older ages than among white males.

"Although acute coronary occlusion occurs less frequently among Negroes than among white persons, deaths from this cause among Negroes occur several years earlier. The mortality from this cause appears to be somewhat higher among the Jews than among white Gentiles. However, Hedley points out that this may be due to the large number of Russian Jews and may not prevail among native-born Jews.

"There was no definite seasonal variation of deaths from acute coronary occlusion as judged by the monthly distribution of deaths, although there were considerably fewer deaths during the warm months. The mortality rate among white persons increased from 36 per hundred thousand of population in 1933 to 84 in 1937. Among Negroes the increase was only from 25 to 27.

"The increase in reported mortality from acute coronary occlusion during this period cannot be attributed, Hedley says, to any great extent to the aging of the population in general or to the aging of the foreign born population in particular. Improvement in diagnosis was probably the main reason for the increase. In fact, the diagnosis of coronary occlusion cannot even yet be regarded as stabilized. Some further difficulties can be anticipated therefore in determining whether subsequent possible increases in the incidence of mortality from acute coronary occlusion are real or apparent."



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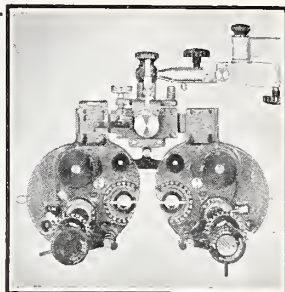
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## ADVERTISERS IN THIS ISSUE

Adams, Arthur (Medical Books).....	viii
American Red Cross.....	xxiii
Chicago Tumor Institute .....	xxii
Commercial Announcements .....	xxv
Cook County Graduate School, Chicago.....	xxiii
Corn Products .....	vii
Ford-Mercury .....	3rd cover
Hanger Company, Indianapolis.....	xiv
Home Lawn Sanitarium, Martinsville.....	xii
Hord's Sanitarium, Anchorage, Ky.....	xvi
Hynson, Westcott & Dunning, Baltimore.....	xxiv
Indiana University Medical School.....	4th cover
Lederle Laboratories, New York.....	xi
Eli Lilly & Company, Indianapolis.....	xviii
Louisville Neuropathic Sanitarium, Louisville, Ky.....	xiv
Luzier's, Inc., Kansas City, Mo.....	xxxvi
Maples Sanitarium, Saint Marys, Ohio.....	xiv
McMillen Sanitarium, Columbus, Ohio.....	xvi
Mead Johnson & Co., Evansville.....	iv
Medical Protective Co., Wheaton, Ill.....	xix
Milwaukee Sanitarium, Wauwatosa, Wis.....	4th cover
Natl. Assoc. Chewing Gum Mfgs.....	xxii
Neuronhurst—Fletcher's Sanitarium, Indianapolis.....	xv
Parke Davis Company, Detroit.....	xxxviii
Petrolagar Company, Chicago.....	2nd cover
Physicians' Casualty Assn., Omaha, Nebr.....	xxv
Physicians' Directory.....	xxvi
Pitman-Moore Co., Indianapolis.....	xvii
Plymouth Sanitarium, Plymouth, Ind.....	xvi
Pogue School, Wheaton, Ill.....	xiv
Radium Emanation Corp., New York.....	xiii
Radium and Radon Corp., Chicago.....	xv
Rogers Memorial Sanitarium, Oconomowoc, Wis.....	xvii
Rupp and Bowman, Toledo, Ohio.....	xix
Sharp & Dohme, Baltimore.....	xxi
S. M. A. Corporation, Chicago.....	ix
Smith, Kline & French, Philadelphia.....	v
South Bend Medical Laboratory.....	xv
Squibb, E. R. & Sons, New York.....	xxxvii
Sterne Memorial Hospital, Indianapolis.....	xv
Stokes Hospital, Louisville, Ky.....	xiii
Upjohn Company, Kalamazoo, Michigan.....	iii
Waukesha Springs Sanitarium, Waukesha, Wis.....	xiv
White-Haines Optical Co., Indianapolis.....	xxiv
Wyeth, John & Bro., Philadelphia, Pa.....	xx
Zemmer Co., Pittsburgh.....	xxiii

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# THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

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## PSYCHOLOGICAL FACTORS IN CARDIOLOGY\*

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Experience in the practice of medicine ultimately forces one to the conclusion that every diagnosis should be two-fold. Admittedly, there will be emphasis on structural changes but the psychic element in diagnosis must be considered as at least equally important. Often, in fact, the latter is the more important if we are successfully to rehabilitate the patient. As you know, I am not a psychologist nor can I speak the language of the psychiatrist, but my experience with the manifold fears and anxieties of cardiac patients has necessitated an empirical study of the psychological factors involved. I shall attempt to discuss frank neuroses in which there are cardiac symptoms without heart disease, and those in which a neurosis is implanted in the cardiac cripple. The limits of this paper will not permit consideration of the psychotic episodes which are observed in the course of organic heart disease.

Consciously or unconsciously every physician approaches his patient from the psychic angle. Of necessity, and usually with deliberate intention, he seeks to gain the confidence of the patient. At the outset he secures a history which offers the opportunity of gaining the patient's confidence, and of obtaining a clear idea of the psychic difficulties. After this, however, unfortunately many physicians plunge immediately into the problem of making a somatic diagnosis. All too frequently the possible psychic factors are ignored. Certain structural defects are found, laboratory studies are completed, and the patient is dismissed with general instructions and a prescription. I contend that, under these circumstances, only one aspect of the patient's problem has been given adequate attention and that a most important part of the true physician's

armamentarium has been neglected. Such neglect may lead to prolonged invalidism as evidenced by the following example:

Miss V., 22 years of age, had chorea in her thirteenth year. After this, she was physically below par and unable to take the same amount of exercise as her friends although she continued her school work. When 19 she was informed by a physician who was called because of a mild gastro-intestinal upset that she had a serious rheumatic mitral stenosis and that she must restrict physical activity to a marked degree. She became apprehensive, began noticing that the pulse was irregular and experienced difficulty in breathing because of inability to secure satisfactorily deep inhalations. These subjective symptoms became worse, sleep was disturbed, and she had been confined to bed for two years when I first saw her.

Examination disclosed the presence of a frank mitral stenosis. The heart rhythm was irregular as a result of a physiological sinus arrhythmia. There was no evidence whatever of any congestive failure. She was told that, although rheumatic mitral stenosis existed, none of the subjective symptoms could be attributed to it, and that I knew of many similar patients who were leading normal lives. She was above the average in intelligence and it proved easy to secure her cooperation in taking a graduated amount of exercise. For a while carbromal was required to control the insomnia. She has resumed her place in society and is extremely grateful for her rehabilitation. Here was an instance of organic cardiac involvement complicated by a neuro-circulatory asthenia.

Fear and anxiety concerning heart disease may make an invalid out of an otherwise normal person. I have selected the following from many examples in my practice:

Mr. P., aged 38, salesman, had never been ill prior to eight months before I saw him. His history showed that he had been working under stress and eating irregularly for months before he began to experience pain in the region of the heart and palpitation. This pain was confined more to the left chest but often radiated into the left shoulder. Exercise did not seem either to initiate the pain or to aggravate it when present. Belching would sometimes relieve the discomfort immediately. A diagnosis of angina pectoris had been made by one physician and this was confirmed by a consultant. Marked

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restriction of physical activity had been advised. Nitroglycerin and aminophyllin had been given without relief. He had lost 40 pounds in weight during the preceding eight months. He was nervous and slept fitfully. A general examination revealed no evidence of disease, cardiac or otherwise. The electrocardiograms were normal. Fluoroscopically there was neither enlargement nor alteration of cardiac contour present, but a moderate sized air bubble was seen in the stomach. The Wassermann was flatly negative and his basal metabolic rate was plus 5.

The diagnosis, as you no doubt infer, was aerophagy and an anxiety neurosis. Instructions were given that he eat slowly, chew his food thoroughly and take no liquids at mealtime in order to avoid his tendency to swallow air. It was explained that his pain and heart consciousness resulted from the distention of the stomach with air. He was told to resume his occupation at once, but he was advised to follow a routine which would avoid constant rushing. His chest pain ceased and within eight months he had fully regained his weight.

In handling patients of this type it is necessary to go into full details regarding the basis for such an optimistic diagnosis. Unless the diagnosis can actually be "sold" to the patient and all doubt as to its accuracy banished, a cure cannot be expected. It is best not to administer any drugs to these patients for the reason that the taking of medicine serves as a reminder of the illness. Further the apparent need for drugs suggests to the patient that perhaps the illness is more serious than he had been led to believe. The psychoneurotic is a highly suspicious person who tries to read the innermost mind of his physician and, in so doing, he may attach ominous significance to his words and even to his facial expression.

In the first case reported there was lack of physical stamina and a highly emotional background. The failure of the physician carefully and sympathetically to explain the exact amount of cardiac damage coupled with his blunt advice to restrict physical activity markedly were enough to arouse a host of fears in so susceptible an individual. Being below par physically and with anxiety added, it was only natural that she should become heart conscious. Within a short time such a vicious circle was sufficient to produce alarming subjective symptoms which caused her to go to bed. In the second case an emotionally sensitive man working under nervous tension developed a marked aerophagy which produced heart consciousness and pain. Failure either to secure a carefully taken history or to evaluate it properly led to the erroneous diagnosis of angina pectoris and the subsequent invalidism of the patient.

The methods employed in handling patients with heart symptoms will largely determine their attitudes toward their illness and may spell the difference between invalidism and partial or complete restoration to normalcy. Equal care must be exercised in determining the possible psychic problems as in evaluating the physical signs. A most important rule which I have tried constantly to follow was enunciated many years ago by the late Sir Clifford Allbutt: "Give your prognosis in heart disease on the best suppositions; treat your patient on the worst."

Cheerfulness and sympathetic understanding are the foundation stones of the physician's approach to the patient who complains of heart symptoms. The more vehemently a complaint of heart consciousness is emphasized, the more honestly cheerful I can be because the likelihood of a purely functional basis is so great. In this connection I am reminded of what Matthew Baillie wrote almost one hundred and fifty years ago: "There are in truth few phenomena, which puzzle, perplex, and lead into error the inexperienced (and sometimes the experienced) practitioner, so much as inordinate action of the heart. He sees, or thinks he sees, some terrible causes for this tumult in the central organ of the circulation, and frames his portentous diagnosis and prognosis accordingly. In the pride of his penetration he renders miserable for a time the friends—and by his direful countenance damps the spirits of his patient. But ultimate recovery not seldom *disappoints* his fears, and the physician is *mortified* at his own success."

There are as many different aspects of the psychological problems in heart disease as there are different patients. No two patients can be handled alike but certain general rules may be mentioned. It is most important to have the patient see his disease from an impersonal and objective standpoint. When heart disease is approached from this angle, and especially when it is regarded as something which can be controlled, real progress has been made. Very often the mental reaction to organic heart disease is more harmful than the disease itself. If fear is allowed to creep in, and especially if the physician tells the patient of all the dire consequences possible, certain invalidism is the result in a susceptible individual. "I cite this as an example in which an unfortunate and improper approach to a patient is illustrated:

A married woman, 57 years of age, gave a history of having been heart conscious for several years. At intervals she had pain and soreness under the right costal margin which was accompanied by an increase in temperature. An internist had examined her and found she had "serious hypertensive heart disease and a badly infected gall bladder." He intimated that under ordinary circumstances he would recommend an operation, but her type of heart disease was so serious he felt surgical intervention was hazardous and told her she must decide what was to be done. The shock to her nervous system was tremendous; she regarded her situation as utterly hopeless and returned to her home physician who could not console her. Under the constant care of a nurse she had been an invalid for over a year when I saw her in consultation. She had a systolic blood pressure ranging from 168 to 190 mm. Hg., and a diastolic level between 110 and 124 mm. Hg. The heart was unenlarged, there were no murmurs, but there were frequent premature contractions. Electrocardiograms revealed only left axis deviation and premature contractions of ventricular origin. There were no rales at the lung bases and no evidence of congestive heart failure was found elsewhere. The gall bladder was palpable and tender. Laboratory investigations were negative with the exception of a slight anemia and a moderate increase in leukocytes. When told that a cholecystectomy might be undertaken with little more than the average risk, her entire attitude changed. Although she had been a pathetically fear-ridden invalid, she now made calm and immediate preparations to enter



a hospital. Following the operation her convalescence was prompt and uneventful. At present, after four years, she is free of symptoms and attends to all of her household duties. The premature contractions are no longer present and her blood pressure is approximately 150/100 mm. Hg.

From a psychic standpoint there are two groups of patients especially difficult to handle. First, the ignorant person, and second, the person who cannot adapt himself to a changed type of life as necessitated by his disease. With the ignorant person we can hope to do little. The person who fails to adapt himself to the changed conditions produced by his disease may sometimes be helped materially if he can be taught to cultivate a suitable hobby. In fact every person found to have some type of organic heart disease, except in its terminal stage, should be encouraged to select a hobby in line with his natural interests and in keeping with limitations of his condition.

In an effort to control the psychic problems encountered in heart disease in addition to encouragement, persuasion, rationalization, and education, we might well resort to change in environment. When, after adequate trial, these methods fail to work with a neurotic person whether there is or is not organic cardiac involvement, it is best to refer the patient to a psychiatrist.

In its final analysis this paper is merely an attempt at discussion of the art of medicine. The conscientious physician must realize that cultivation of this millenium old art is of the utmost importance if he is to rehabilitate many of his patients. In this day of laboratory procedures it may be that we have relied too much upon such methods and have not attached enough significance to that *art* which deals with personal and human relationships between doctors and their patients.

523 BRISLIN MEDICAL BUILDING.

## SOME CONTRIBUTIONS OF ROENTGEN RAYS TO DIAGNOSIS\*

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The general practitioner is the basic unit of the medical profession, and his importance to this group as well as to organized society can scarcely be overestimated. With the multiplication of specialties and specialists his field has become progressively narrowed, for out of a conscientious regard for his patients' welfare he has passed on to experts a steadily increasing amount of work, including some that he might have retained with advantage to himself and without disadvantage to those whom he serves. As a result the ranks of the general practitioner are being decimated through lack of new recruits, and more and more communities deplore the lack of his indispensable services. This situation is not only unsatisfactory to all parties concerned but threatens to become serious, and those of us who are not engaged in general practice might well give sharper attention to the matter. Now I have no complete solution to offer, and shall confine my suggestions solely to one angle.

It seems to me that the practitioner's fundamental problem is that of diagnosis, for when disease is definitely identified it is not hard to select appropriate treatment. In many cases, especially those of acute disease, the diagnosis is obvious or can be reached by the use of simple aids with which all doctors are equipped. But there are also many cases, especially those that are chronic, in which the manifestations are indecisive, and examination with special equipment together with expert inter-

pretation of the data obtained is requisite for diagnosis. In such instances the practitioner is likely to refer and completely relinquish the patient to a specialist for both diagnosis and treatment, although often the necessary therapeutic measures could be carried out by the referring physician. Often this precipitate abandonment of a puzzling case is really a disservice to the patient and, at best, is likely to make him doubt his doctor's ability. The practitioner has at his command the purely diagnostic specialists, such as the pathologist, bacteriologist, endoscopist and diagnostic roentgenologist, and might well invoke their assistance far oftener than he does now. The family doctor, with his intimate knowledge of his patients and their deep respect for his advice, has an extraordinary opportunity and a corresponding responsibility to exclude or discover grave diseases at an early stage when treatment offers better prospect of success. In any case, whatever the affection may be, I feel that he should investigate thoroughly before deciding whether or not he can give the necessary treatment. In his endeavor to fulfill this responsibility roentgen rays offer him effective service in almost every field. Indeed so manifold are the applications of this diagnostic aid that it will be impossible for me to cite them all. Besides, the value of roentgen rays in cases of fracture, dislocation and common diseases of bone is well known, and descriptions of its employment in the limited specialties would not be of general interest. So I shall point out certain practical but less familiar uses of the roentgen rays and devote most of my demonstration to the diagnosis of internal diseases,

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particularly those of the lungs, gallbladder and alimentary canal.

One of the most common complaints with which the family doctor has to deal is chronic or recurrent pain, low in the back. Sometimes it is associated with unilateral or bilateral sciatic pain, or with sensory impairment or muscular atrophy. In any case a casual diagnosis of lumbago is not sufficient, and many potential causes of the pain must be considered. Among such causes are faulty posture, trauma, infection, metabolic and senescent conditions, congenital anomalies, benign or malignant tumor, or prolapse of an intervertebral disk. To exclude or establish some of these causes, roentgenologic examination of the lumbar spine, either by simple roentgenography or after injection of air or iodized oil, is indispensable. Prolapse of a disk, for example, is not altogether rare and cannot confidently be ruled out or disclosed without roentgenologic examination.

Employment of roentgen rays for examination of the lungs was one of the earliest applications of this agent to clinical medicine. Today the test is demanded almost as a routine in hospitals and clinics, and in general practice it should be applied more frequently than it is. Only by this means can early pulmonary tuberculosis be excluded with assurance, for often it is present and roentgenologically demonstrable when there are no physical signs or suggestive clinical manifestations. By this capability the roentgen rays have helped vastly to lower mortality from the disease. In virtually all cases of tuberculosis, whether early or advanced, the rays are indispensable to demonstrate the extent of disease, its degree of activity, its progress or recession, and the presence or absence of complications.

Further, the highly practical value of roentgenologic examination of the thorax is by no means confined to studies of tuberculosis. Against the transradiant pulmonary fields, lesions of any variety are depicted clearly, as a rule, and most of them, such as pneumonia, bronchiectasis and metastatic tumors, can be identified. Primary cancer of the lung, which is not altogether rare, can be diagnosed, either positively or tentatively, and subjected to bronchoscopic confirmation in a large proportion of cases. In cases of chronic pulmonary disease the family doctor seldom fails to invoke roentgenologic aid, but he is not often inclined to demand it for patients confined to their homes with acute disease, such as pneumonia, largely because his early experiences with examinations at the bedside were not satisfactory. However, he has at his service today highly efficient portable roentgenologic units with which excellent roentgenograms can be made, and almost invariably the information thus obtained is important.

Disease of the gallbladder is frequently encountered in general practice, and the diagnostic value of cholecystography merits special emphasis, for its reliability is closely comparable to that of roentgenologic examination of the alimentary

canal. But it should also be emphasized that this reliability can be attained only with an orderly and carefully executed technic and a rather extensive experience in interpretation. When the test is properly carried out, the general average of correct diagnoses is well above 90 per cent. Absence of any shadow of dye in the gallbladder is significant of cholecystic disease in 98 per cent of instances, and a shadow adjudged conservatively to be faint is only slightly less reliably indicative of disease. Gallstones can be diagnosed specifically in about 60 per cent of cases, and in virtually all remaining cases of cholelithiasis the existence of disease is indicated by an abnormal cholecystographic response. In a considerable proportion of cases papillomas and adenomas can be disclosed and identified. It is regrettable that requests for this examination are confined chiefly to cases in which the clinical history is strongly suggestive of cholecystic disease. In such instances the objective evidence usually furnished by cholecystography is valuable for confirmation, but the method is even more valuable when symptoms are atypical and confusing, for then it is the sole practicable means of disclosing or excluding the presence of biliary disease.

Examination with the roentgen rays has become the chief reliance for the disclosure and differential diagnosis of diseases of the alimentary canal, particularly peptic ulcer, benign tumor and cancer. Gravest of these, of course, and by no means rare, is cancer. By roentgenologic examination the presence of cancer can be revealed in its early stages, and almost as soon as the lesion can be discerned by direct inspection at surgical exploration. Cancers of the stomach no larger than a fingernail can be identified by the roentgenologist. Unfortunately, however, in the majority of cases the method is not applied soon enough and the disease is not discovered until it is well advanced and beyond surgical cure. Many belated diagnoses result from the common tendency to require roentgenologic investigation only when the patient's symptoms are definite and severe. What is needed is a keener realization that early cancer, unless obstructive, seldom gives rise to marked clinical manifestations, and its timely discovery requires more than ordinary alertness on the part of the attending physician. Here the family doctor has the first opportunity and the primary responsibility. Hemorrhage and indications of obstruction are such impressive signals for roentgenologic investigation that they will scarcely fail to be heeded. More often, however, the really early clinical manifestations are far less pronounced and are confined to loss of weight, anemia, recurring nausea, or symptoms so vague and slight that it would seem fantastic to attribute them to any organic affection, cancer least of all. But only by regarding these conditions seriously and demanding roentgenologic investigation, especially if the patient is beyond forty years of age, can the high mortality from gastro-intestinal cancer be lowered



and progress toward that end depends chiefly on the general practitioner.

Certain practical considerations are involved in my plea that the practitioner should avail himself of roentgenologic aid more often than he does now. One is that the proportion of negative results from examination undoubtedly would increase, and both physician and patient would be inclined to wonder whether the test was worth the trouble. The answer is that confident exclusion of disease is just as important as discovery of its presence, and that if unsuspected disease is found in only one of five, or even ten, patients, the roentgenologic test is well worth while. Another consideration is pure-

ly economic. Would not the examination entail a burdensome expense on patients of limited means? To this I believe I can reply confidently that radiologists as well as those engaged in other medical specialties want to make it possible for all who need their services to get them, regardless of compensation. By so doing we would all help to detoxicate the current communistic propaganda for state medicine. Finally, at all events, I feel that the general practitioner is actually, or should be, a master clinician and in that capacity has a compelling obligation to carry every diagnosis as far as he reasonably can as a matter of fairness to his patient, to himself and to his guild.

## INTERNAL FIXATION OF FRACTURES\*

### ANALYSIS OF THE REACTION OF VARIOUS METALS

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A consideration of the material employed in the internal fixation of fractures presupposes the exercise of discretion in the selection of fractures to be treated by open reduction and internal fixation. Obviously, the treatment of every fracture should be chosen with the view of affording the best functional result. The simplest and safest method of obtaining this result is the most desirable. Reduction by manual force, followed by external immobilization or traction, is adequate in the vast majority of cases. In certain types of fractures, however, open reduction and some means of internal fixation offer the most favorable prospect of satisfactory function.

Acute fractures which should be treated by open reduction and internal fixation are of two types: (1) those wherein the fragments cannot be placed in proper position and so maintained by conservative measures, or treatment by such measures has failed to restore adequate alignment to prevent serious disability or deformity, and (2) those wherein sufficiently accurate alignment to afford good function has been or can be obtained by closed reduction, yet the degree of displacement warrants the expectation of some deformity, slow union, and a slight permanent impairment of function. Since the introduction of vitallium, the risks attendant upon open reduction and plating of the latter type of fracture are negligible, and the probability of securing better function with a shorter period of disability justifies the surgery involved.

Internal fixation of fractures as a routine measure was first described in 1905 by Lane, who introduced his steel plate for this purpose. The method was later largely abandoned because of the

disastrous results incident to reaction of the tissues to metal, and to infection as a result of faulty technic. A comparatively small number of surgeons continued to use fixation by the Lane plate in selected cases only, but the majority of the plates were removed after union became solid on account of late complications from foreign body reaction. Also, following the application of these plates, callus formation was apparently inhibited, and nonunion and late refracture were not uncommon, which often necessitated removal and a second, more extensive operation.

There has always been a demand for some material, preferably absorbable, which would cause no reaction, yet would maintain complete fixation until union was solid. Thus far, no such material has been discovered. Recently, however, a new metal, a nonferrous alloy of cobalt, chromium and molybdenum, has been introduced by Drs. Charles Venable and Walter Stuck, of San Antonio, Texas, under the trade name of vitallium. This material has long been used for making dental plates and bridges, without causing the slightest reaction even after the elapse of years. Venable conducted animal and chemical experiments with plates and screws of vitallium, as well as plates and screws of other metals employed for internal fixation. He found by animal experiments that vitallium apparently incited no reaction as demonstrated by roentgenograms in the living, and by autopsy after union was solid, whereas the ferrous metals, as steel and vanadium, gave rise to a definite tissue reaction, or necrosis, with atrophic changes in the bones about the screws. He also demonstrated that vitallium did not bring about oxidation or other chemical change in blood serum or in salt solution, the fluid remaining perfectly clear. On the other hand, the ferrous metals in common use

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Fig. 1. (a) Typical acute fracture of the humerus. (b) Shows solid union two months following open reduction with application of vitallium plate and screws.

caused an excessive precipitate, as indicated by ferrous oxide in large quantities. He also demonstrated by the galvanometer that vitallium had no electrolytic effect, while the ferrous metals induced a definite electrical current resulting in electrolysis. He therefore assumed that electrolysis is responsible for tissue reaction after the use of ferrous material. In the past, Venable has been an advocate of internal fixation by ferrous metal when feasible in certain fractures, but has found in actual practice that vitallium is far more satisfactory.

Regardless of these reports, some surgeons claim that there is no reaction when metals containing steel, such as vanadium, are inserted for fixation,

provided the technic of application is efficient. They also state that vitallium is inferior to the ferrous metals in that it possesses less strength and is more brittle. This has been demonstrated by Dr. James A. Carnes, of the Republic Steel Company, who has recently carried out an investigation of the qualities of the various metals employed in the fixation of fractures. Nevertheless, vitallium possesses sufficient strength for practical purposes in clinical work.

The author formerly avoided the use of metal plates when possible, because of the many disastrous results observed, and strongly condemned their use. After the introduction of this new material and the proof submitted by Venable and

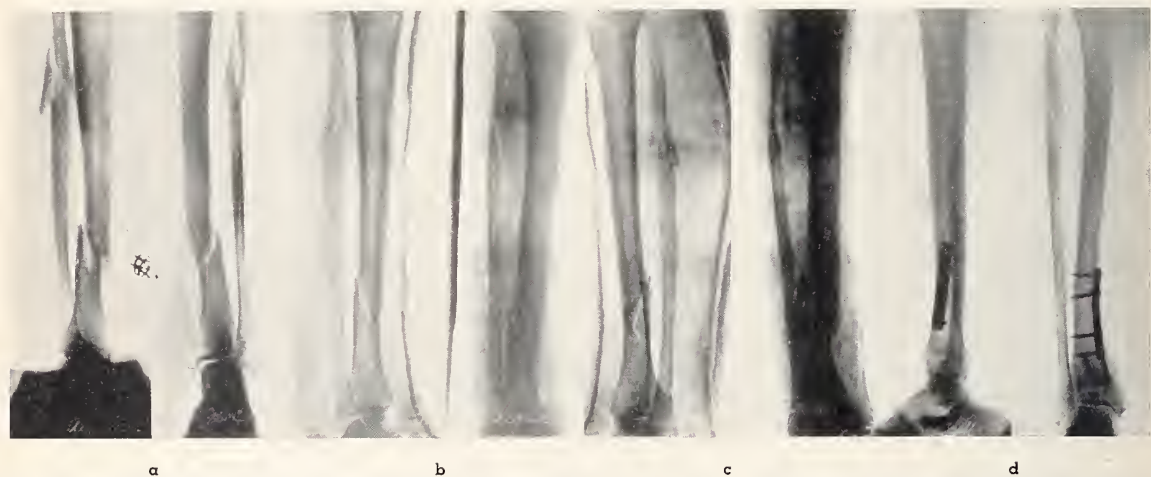


Fig. 2. (a) Comminuted oblique fracture of the tibia and fibula. (b) Shows satisfactory position of the fracture following manipulation and application of plaster cast. (c) Illustrates loss of position in plaster cast. (d) Same patient following open reduction and internal fixation with vitallium plate and screws. This is a border line case in which deformity would have been accepted before present methods of open reduction and plating were adopted.

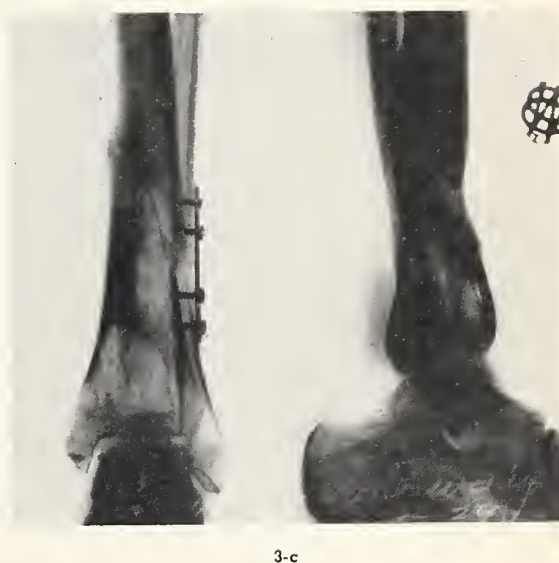




Fig. 3. (3-a) Acute compound fracture potentially infected from without. (3-b) Position of the fragments following routine debridement of compound wound and plating of fibula through second incision. Sulfanilamide used prophylactically. Wound healed by primary intention. (3-c) End result seven months following operation. Solid bony union at fracture sites.

Stuck, however, we began the use of vitallium in selected cases in February, 1937. The results were so successful that we continued its use and to the present time have employed this material in 152 cases. Roentgenograms made over a period of several months have shown no evidence of absorption of the bone about the screws, nor of inflammatory changes in the soft tissues. Callus appears to have covered the plate partially in many of the cases. We have removed eight plates at periods varying from four to ten months after operation. In every case, the screws were firmly imbedded in the bone, necessitating removal with a screw driver. There was no evidence of corrosion or tarnishing of the metal, nor was the soft tissue about the plates stained; rather, it appeared to be normal scar and fibrous tissue such as is found in the healing of any surgical wound. In two cases, removal of callus from over the plate was necessary.

At first, vitallium plates were used only in closed fractures. Later, when it was learned that vitallium was tolerated so well by the tissues, a bolder attitude was assumed and compound fractures also were plated. A routine debridement of the wound is done, followed by plating of the fracture. This immobilizes the fragments and helps to obliterate unnecessary dead space. Thus far there have been no more infections in the compound fractures so treated than in those treated with debridement alone. Many of these cases have healed by first intention without infection. In compound fractures the author uses sulfanilamide prophylactically to aid in the prevention of infection. The encouraging results following the plating of potentially in-



fectured compound fractures have led to the use of a vitallium plate in a few cases that were grossly infected. Even in these frankly infected cases, the vitallium has been well tolerated.

In addition to the use of this metal for internal fixation of fractures, it has also been used in arthroplasties of the hip and knee. The author has used vitallium caps in nine arthroplasties of the hip. The cap employed is of the type which was devised by Smith-Petersen, of Boston. The author has also devised a cap for the lower end of the femur to be used in arthroplasties of the knee. This has been employed in four cases. These cases are too recent to give an opinion as to the end results. Smith-Petersen has demonstrated good results in arthroplasties of the hip. Thus far, in the author's experience, results in arthroplasties of the knee have been much more encouraging than in arthroplasties of the hip. Despite the large size of the

plate used in the knee, in all cases in which the vitallium cap has been used, the metal has been well tolerated and the postoperative reaction around the joint has not been any more than in patients following arthroplasties of the knee in which fascia lata has been used. However, the range of motion obtained in these knees to date has not been satisfactory.

Accurate alignment of the fragments was maintained in all fractures in which vitallium plates were used with the exception of two. One of these was a fracture in the upper end of the femur and the plate was under considerable tension; moreover, the plate was one of the earlier types manufactured, and the alloy did not possess the malleability or strength of the newer types. The other one was a case of delayed union in the middle third of the femur.

We have reviewed a large number of fractures from which wires, pins and screws of ferrous materials, Parham bands, and steel plates of the Lane type were removed. Ordinary wire was found to produce a definite reaction. Rustless steel wire, on the other hand, incited practically no reaction. Smith-Petersen nails of rustless steel, of which we have removed 40, incited two types of reaction: proliferation, in which the nail was held tightly and removal was difficult, necessitating the use of special instruments, and those wherein there were atrophic and necrotic changes and the nail was easily extracted with an ordinary hemostat or Kocher clamp. Only two were of the first type, whereas thirty-eight were of the second. In all, cultures from the nails were negative. We have not used vitallium nails, as some of those first manufactured broke after weight bearing; we understand, however, that nails of this material will now resist weight bearing. Steel nails and wires have proved satisfactory in a high percentage of cases. Steel plates have been unsatisfactory in the author's experience. In order to estimate more accurately the reasons for the present controversy regarding steel plates, however, a careful study has been made



Fig. 4. X-ray following arthroplasty of the hip in which Smith-Petersen vitallium cap was employed.



Fig. 5. Postoperative x-rays of arthroplasty of the knee in which vitallium cap was used over the lower end of the femur.

of thirty-one cases wherein this material was applied by surgeons elsewhere and subsequently removed by the author. Seventeen of the plates apparently were efficiently applied. In the remainder, the screws were of an unsuitable type, or the plates were either too small or too weak, or were improperly applied as, for example, one or more screws were inserted through the fragments or through the fracture site. Infection was or had been present in fourteen of the thirty-one cases. In one case, that of a boy, aged twelve years, fracture recurred after four years of solid union.

On removal of the plates not efficiently applied, a definite tissue reaction was observed. In those wherein the plates had apparently been efficiently applied and there was solid union, as with the nails, there were two types of reaction: atrophy and sclerosis. Atrophic changes were observed by roentgenograms and at operation in all except four cases; in these four the reaction was sclerotic in type and the plate was completely covered by dense new bone. Removal was necessary because of a local reaction, with pain and often with swelling.

This survey indicates that ferrous materials often induce an unfavorable tissue reaction about the fracture site, yet obviously inefficient mechanical fixation is a definite factor in producing complications requiring removal of the material. Doubtless, laxity in the practice of strict asepsis also contributes to a not inconsiderable number of disastrous results following open reduction and internal fixation. Exposure converts a simple fracture into a compound fracture, with many of its risks. With proper observance of asepsis, however, and accurate fixation by vitallium, the dangers of open reduction and internal fixation are minimized, and are outweighed by the advantages of replacement and maintenance of the fragments in anatomic position.



## BRONCHOSCOPY AS AN AID IN TREATMENT\*

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The attempt to do bronchoscopy alone no doubt has been a dominant factor in causing confusion in the minds of some medical men as to the real value of bronchoscopy in pulmonary conditions. Conscientious team work in bronchoscopy is absolutely essential in the selection, treatment and diagnosing of cases. It is obvious that with the same team of assistants the technique will progress more smoothly than it would otherwise. There should be a group very closely associated with the bronchoscopic team, consisting of the chest surgeon, internist, roentgenologist and pathologist. Preliminary study of the patients by this entire group will be of invaluable assistance in the proper functioning of modern intelligent broncho-esophagology, and with the increasing interest in thoracic surgery the conscientious bronchoscopist is in great demand.

### DIRECT LARYNGOSCOPY

It is almost impossible to examine, indirectly, the larynx of a child under two years of age. The only absolute means is by the use of the laryngoscope, as is evident from the fact that in one case an open safety pin had been in the larynx of a child for eight months without the diagnosis of a foreign body being made. The case was considered one of laryngeal diphtheria, and it was not until months later when the child was brought to the hospital for chronic hoarseness that a direct laryngoscopy was done which revealed the open safety pin, and this we removed.

### CASES TREATED FOR DIPHTHERIA

The use of direct laryngoscopy in the diagnosis of laryngeal diphtheria and its treatment by aspiration, in conjunction with the established treatment, has been a great factor in the successful management of this condition, and has contributed immeasurably toward lessening the chronic laryngeal stenosis, post-diphtheretic in character.

Diagnosis of laryngo-trachitis in children can be made with the laryngoscope and bronchoscope. The treatment of this disease, which has a very high mortality rate under three years of age, becomes either tracheotomic or bronchoscopic aspiration of the mucus, along with the general supporting measures instituted by the pediatrician.

As the title of this paper is one concerning bronchoscopy as an aid, we must nevertheless keep in mind the possibility of an overlooked opaque, or non-opaque foreign body in the tracheobronchial tree that may be the real cause of some obscure pulmonary lesion. Foreign bodies inhaled at time

of operation, as a tooth or parts of instruments, will cause serious trouble, especially teeth, by plugging a bronchus, causing abscess formation, even empyema and death.

Bronchoscopy has long been the conceded method of removing foreign bodies from the tracheobronchial tree, whether due to known inhalation or forgotten for long periods of time. The elder Gross said that "there are two types of foreign bodies, (1) those that are coughed up and get well; (2) those that come to autopsy." We have seen both classes.

I recall a case in which the child had swallowed an open safety pin that lodged in the stomach; it was regurgitated into the esophagus and then regurgitated out of the mouth.

Another case of a staple in the right bronchus, points up, was coughed up just before bronchoscopy. This, of course, is the easiest way to get rid of a foreign body but unfortunately it does not often happen, and then we must resort to bronchoscopic removal, which gives excellent results in proper hands.

A diagnostic bronchoscopy is indicated in cases of chronic cough which remain unexplained after the usual study by diagnostic methods. Oftentimes it will reveal the true cause of the cough, as indicated in the following case in which various lung conditions were being treated where a foreign body was the cause. The case of B. A., aged 6 years, was admitted to the hospital with fever and vomiting. The child had been treated for four and one-half years for various chest conditions, such as pneumonia, empyema, pleurisy, tuberculosis and abscess of the lung, and it was only after an x-ray had been taken that the true cause was found. The history obtained was that when the child was about one and one-half years old he accidentally inhaled a foreign body but nothing was thought of it by the parents. Later, the child developed a cough, productive of thin grayish sputum. Upon bronchoscopy I found the right bronchus filled with pus and granulations around the foreign body—a screw. This was removed and all symptoms disappeared.

### HEMOPTYSIS

This does not contra-indicate bronchoscopy unless the loss of blood is great and continues. Rather obscure hemoptysis is an indication for bronchoscopy. Bronchoscopic examinations should be made between attacks, if possible, as it is inadvisable to bronchoscope in the face of hemorrhage. Bronchoscopy will often establish diagnosis of a foreign body, carcinoma of the lung, granulations, tracheal or bronchial ulcers. For example, a case with an obscure chest condition with negative

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findings as to sputum, etc., but with hemoptysis. This man had been employed in the acid room of a platinum refinery, and one day was overcome with the acid fumes. He was sent home and his physician was called, who said the man had paralysis of the larynx due to fumes. The patient was pensioned and this condition of aphonia went on for several years, with development of a productive cough, raising about eight to eleven ounces of foul smelling pus every day. He was sent away to various places with the idea that a change of climate would be beneficial. His condition became steadily worse, accompanied with hemoptysis, and he was referred to me for a diagnostic bronchoscopy which revealed a foreign body in the right bronchus just below the middle lobe bronchus. The foreign body, a vertebrae of a squab, was removed. The patient suddenly remembered that years ago, before working in the refinery, he had choked on something while eating squab. This man had been drawing a pension for disability, thinking his condition due to acid fumes.

It is not uncommon to have bronchial symptoms produced by esophageal foreign bodies, as irritation, ulceration and perforation of the esophagus and trachea. This is illustrated by the case of a seventeen month old child who swallowed a copper rivet which lodged in the thoracic esophagus. Although this was given no consideration, a subsequent cough developed and was treated for bronchitis for two weeks. Only after hemoptysis was an x-ray taken, showing the rivet which had ulcerated through the esophagus and trachea. The child died of a mediastinitis. Many such cases have been reported in literature.

#### PHYSICAL SIGNS MAY CHANGE AS WELL AS FOREIGN BODY

The physical signs may change due to the changing of the foreign substance. This we observed in the case of a whistle. It happened to be my privilege to be the third bronchoscopist to bronchoscope the patient and, having an x-ray taken prior to bronchoscopy, I noted that the foreign body had shifted from the left bronchus to the right bronchus.

#### MASSIVE COLLAPSE OF THE LUNG

Post-operative collapse of the lung is very advantageously treated by bronchoscopy, if inflation and deflation of the lung has not been sufficient to remove the cause.

#### ABSCESS OF THE LUNG

In abscess of the lung following unresolved pneumonia or upper respiratory infections, results are very satisfactory in bronchoscopic aspiration. There are, of course, some types of abscess of the lung in which bronchoscopy will not be of much benefit other than to assist the thoracic surgeon in giving him the bronchoscopic picture. Bronchoscopy has aided materially in the treatment of lung suppuration. The best results are seen in

early cases; a large percentage of pulmonary cases are post-operative.

Lung abscesses frequently occur in malignancy due to infection or shutting off of a bronchi by the tumor. Then there is the type of abscess for bronchoscopic treatment, and that for surgery. A peribronchial suppuration usually follows some upper respiratory operation, followed in a few days by foul sputum, usually showing spirochetes. These may clear up without treatment; others are helped by bronchoscopic treatment, by removing granulations and aspiration of material. The peripheral type often ruptures into the pleural cavity and results in empyema.

#### BRONCHIECTASIS

Bronchiectasis has been materially aided by bronchoscopy, and forms a large group in a bronchoscopic clinic. Bilateral cases are helped by bronchoscopic drainage. As the sputum diminishes the treatments are given farther apart, and the patient becomes able to enjoy life and do light work. On the other hand, in the unilateral case, treatment should be lobectomy. Sinus disease is usually associated with bronchiectasis and this should be cleared up. Time does not permit us to go into this phase of the subject. We can be of help and service in definitely mapping out bronchiectic cavities by means of an opaque material, and in this way be of assistance to the thoracic surgeon in his decision of continued bronchoscopic treatment or lobectomy.

#### TUBERCULOSIS

The value of bronchoscopy in tuberculosis is its aid in the diagnosis of unexplained signs and symptoms; also in cases presenting obscure pulmonary conditions in which tuberculosis may be suspected but cannot be proven. I do not think bronchoscopy is indicated in uncomplicated pulmonary tuberculosis. Stenotic bronchi may be dilated, permitting better drainage. These stenotic bronchi may also be plugged to produce an atelectasis, with the hope of collapsing a cavity distal to the stenosis which cannot be collapsed by a pneumothorax.

#### PLUGGED BRONCHUS BY FOREIGN BODY

Various signs are produced in the chest by foreign bodies, depending on their size, infectivity, and whether they completely plug or partially plug the bronchus, causing atelectasis and emphysema.

In one case a peanut kernel was inhaled—one-half of which lodged and completely plugged the left bronchus, the other half lodging and partially plugging the right bronchus. This child had been treated for diphtheria and lobar pneumonia. After bronchoscopic removal of the peanut kernels, the patient made an uneventful recovery.

In another instance, the patient had inhaled a timothy top; the child had been treated for bronchial pneumonia, and had been punctured for fluid a number of times, unsuccessfully. Diagnostic



bronchoscopy revealed the middle lobe bronchus plugged by timothy top. This was removed and the patient made an uneventful recovery.

#### CANCER OF THE BRONCHUS

Benign tumors as compared with malignant tumors are comparatively rare. Reports indicate a steady increase in malignancy from year to year. This may be accounted for with the additional diagnostic procedure of bronchoscopy.

The bronchoscopist is of great value to the thoracic surgeon; first, in obtaining specimens for biopsy and histological study; second, by making measurements of various distances in the tracheo-bronchial tree; third, by definitely mapping out the malignant area by means of lipiodol or bismuth powder. We have reported removing primary carcinoma of the bronchus bronchoscopically.

The diagnosis of primary carcinoma of the lung is being more and more supplemented by bronchoscopic examination and biopsy. Unproductive cough, hemoptysis and dyspnea are the outstanding symptoms. Bronchoscopically considered, we have: (1) endobronchial; (2) peribronchial; (3) mixed type.

The only means of making early diagnosis of endobronchial growth is by bronchoscopy. Specimens can always be taken in endobronchial cases. In peribronchial growths it is unwise to bite through normal mucous membrane.

Diagnosis can be made absolute in primary carcinoma of the lung during the early stages of the disease when surgical removal would be hopeful. Biopsy from the larynx is the accepted procedure in the diagnosis of laryngeal neoplasms.

Bronchial obstruction: stop valve, bi-pass valve, and check valve, these may be caused by enlargement and diminution of the lumen of the bronchus; pedunculated or sessile tumor; peribronchial growth, blood clots, foreign bodies, etc. These obstructions can only be determined by bronchoscopic examination, and biopsy.

Obstructive atelectasis may result from many different types of obstruction.

Obstructive emphysema results from incomplete bronchial obstruction that permits air to pass in but not out of the lung.

Foreign bodies must be brought into the picture again, for they still are the cause of some obscure pulmonary conditions found by diagnostic bronchoscopy.

#### PNEUMONOGRAPHY

It is of value to know if bronchiectasis is bilateral, and here pneumonography in combination with diagnostic bronchoscopy is of valued importance.

Time does not permit us to go into the detailed bronchoscopic treatments for bronchial asthma other than to say that we meet with success in the treatment of many cases by means of the bronchoscope.

In the diagnosis of mediastinal disease, the trachea and esophagus are in close relationship with each other, so that usually any disease in the mediastinum will show or alter the shape or lumen of the trachea or esophagus. Here again the bronchoscopist will be of assistance in arriving at a proper diagnosis.

#### CONCLUSIONS

With team work bronchoscopy is of the greatest value in the diagnosis and treatment of pulmonary disease. The internist and pediatrician who first see the patients decide if they should have the benefit of bronchoscopy. Bronchoscopy is the only method to be considered in the removal of bronchial foreign bodies. Obscure chest conditions should have the benefit of bronchoscopic inspection. Bronchoscopy should be a routine procedure in cooperation as an aid to the thoracic surgeon and internist. A close cooperation of pathologist, bronchoscopist, radiologist and thoracic surgeon is highly desirable for the most beneficial form of treatment.

224 DELAVAN AVE.

#### ABSTRACT

##### TWO AMERICAN PHYSICIANS ARE HONORED BY SPECIAL POSTAGE STAMP ISSUE

The benevolent character of the service which physicians give to suffering humanity is typified by the general practitioner of medicine and the army medical officer thus memorialized, *The Journal of the American Medical Association* for Nov. 11 says in commenting on an announcement by the Postoffice Department that the late Major Walter Reed, M.D., of the Army Medical Corps, and Crawford W. Long, M.D., of Georgia, will be among those honored in a famous American series of postage stamps to be issued soon.

"Although other names might well have been added to this brief list, no one will deny that the two selected fully merit this honor," *The Journal* says. "Our Eastern shores and many of our cities were invaded some ninety-five times by yellow fever before Drs. Reed,

Carroll, Agramonte and Lazear conducted experiments in Cuba which demonstrated that yellow fever is transmitted by the bites of certain species of mosquitoes. Yellow fever had been present in the Western hemisphere for at least 300 years and had caused tens of thousands of deaths. Following this discovery by Walter Reed and his associates in 1900, yellow fever soon disappeared from North America and has never returned. Dr. Crawford W. Long, a general practitioner of medicine, on March 30, 1842, first used sulfuric ether as an anesthetic during the performance of a surgical operation. Dr. Long performed this operation on James M. Venable in Jefferson, Jackson County, Ga., a small town then many miles from a railroad."

*The Journal* called attention last year to the disparity between the number of physicians in other countries who had been honored by special issues of postage stamps and the number so honored in the United States.

## SERUM TREATMENT OF PNEUMONIA\*

ROBERT HOFFMAN, M.D.

SOUTH BEND

Antipneumococcus serum, now remarkably refined and concentrated, promises a reduction in morbidity and mortality of pneumonia rivaling the records set by insulin in diabetes and by liver extract in pernicious anemia. In addition to case statistics, any attempted evaluation must be based upon a survey of the pathologic course of events.

When virulent pneumococci are injected into the veins or into the peritoneum, nothing happens. When virulent pneumococci are introduced well down into the bronchial tubes, similarly nothing happens. A contributory factor is lacking. It may be provided by any one of the following:

- (1) a. A plug of mucin enclosing nests of pneumococci.  
b. An existing simple respiratory infection, in which the bronchi are obstructed by plugs of mucin, and those inflammatory areas subsequently contaminated by pneumococci.
- (2) Severe chilling.
- (3) Acute alcoholic intoxication.
- (4) A blow on the chest, traumatizing the parietal pleura.

All of these contributing factors possess a common denominator, namely, edema. The culture medium of edema is void of antibodies and phagocytes. Although its opsonic index is high, it possesses no inhibiting effect on pneumococci, prior to the mobilization of phagocytes. In fact, it prevents the antibodies from reaching the germs.

In bronchopneumonia, or in pneumonia of children, pneumococci reaching the secondary branches of the bronchi near the hilum may break through into lung parenchyma, and small areas of bronchial pneumonia develop, which coalesce and extend outward. The usual manner of progress, however, is for the mucous cylinders surrounding the germs to be sucked lateralward, at each inspiration, from the inner high pressure zones toward the peripheral low pressure zones. Reaching the smaller and thinner bronchi near the periphery, the organisms break through into lung parenchyma. Almost immediately an inflammatory zone arises proximally, with the rapid development of a zone of edema. Springing immediately to the defense of the invasion, the flat cells lining affected alveoli separate from the trabeculae, as the first defensive cells on the scene. Unfortunately, they are unable to engulf or kill the pneumococci at that early stage as they are not vulnerable to any phagocyte or leukocyte. Pneumococci must be sensitized by

animal pneumococcus antibodies before any type of phagocyte can kill them. Although the human economy immediately begins to manufacture antibodies, during the first several days the number of circulating antibodies is far too few to cope with the fast spreading inflammation. The disease progresses. The capillary walls become permeable and the red cells rush out into the alveoli. Simultaneously, the blood begins to lay down meshes of fibrin. In about twelve hours the leukocytes enter the conflict. They, however, are not yet sufficiently armored to attack the germ because the pneumococcus has manufactured by that time a defending ally called "specific substance." This "specific substance" is manufactured by the capsule of the pneumococcus. Chemically, it is a soluble carbohydrate. In football terms, the ball-carrying pneumococcus now has two interferers, the zone of edema, and the antigen or soluble carbohydrate. These soluble carbohydrates virtually block out the leukocytes and keep them from tackling the pneumococci until a definite biological phenomenon has occurred. Therefore, it is at once apparent that either one or two of these running interferers must be taken out of the play before the ball carrier may be tackled. To accomplish that, the human defense mechanism manufactures a pneumococcus antibody. Theoretically, an ideal situation for a lightning attack exists. At that stage the presence of a tremendous number of antibodies could first neutralize the specific substance, and the remainder of the antibodies could sensitize all pneumococci. Thus they would be rendered vulnerable almost instantly to all of the phagocytic body's cells.

By analogy, the late Paul Ehrlich's brilliant conception of a "Therapia Magna Sterilisans," or great sterilizing dose, fits such a situation magnificently. Because Ehrlich's principle failed in the treatment of syphilis, the concept to some extent has been set aside. As we learn more and more of the immune reactions between *S. pallida* and the human host, it seems that Ehrlich would have succeeded with the exception of one technical mistake. That is, that the sterilizing dose employed for the spirochete happened to be a poisonous metal rather than a relatively non-poisonous serum. The large doses, that rapidly might have sterilized syphilis, miscarried because the large doses of arsenic could not be contained safely within the walls of the blood vessels. The resulting capillary hemorrhages of brain, kidney, and bowel thwarted a lightning cure.

In pneumonia, however, the situation approaches the ideal. Reservoirs of pneumococcus antibodies are produced by injecting pneumococci into horses

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or rabbits. The blood plasma is then precipitated by sodium salts and filtered several times until all of the albumin and nearly all of the globulin, except a very small fraction of euglobulin, is removed. This fraction of euglobulin represents an indispensable portion of the organic antibodies, and probably cannot be refined to absolute purity. Thus, were it not for the inevitable anaphylactic response to the injected euglobulin, it would seem ideal to give the entire dose of antipneumococcus serum at one injection. Experience has shown it safer to first determine specific allergic serum responders by the insertion of two drops of the serum into the conjunctiva and reading within a half hour its inflammatory response. If the vessels are definitely injected, that individual may be considered to be allergic, and the serum needs to be administered slowly and cautiously. Severe reactions may be modified greatly by adrenalin. Subcutaneous tests for allergy are more difficult to interpret. Very little time is lost in this half hour preliminary testing. Furthermore, large doses of salicylates may be given while waiting for the conjunctival reaction. The drug lessens considerably the anaphylactic reactions of the treatment.

Meanwhile, the serum taken from the icebox is warmed to body temperature and injected slowly. Still cautious of anaphylaxis, the first cc. should be injected slowly. The first cc. should require five minutes. The remaining 4 or 5 cc. may be injected within an additional five minutes. The first dose should be 20,000 units. The second dose should be given approximately 1½ hours later and also should be 20,000 units. A third dose of similar size can be given in another hour and one half. It is then safe to await a clinical response before determining the need for additional serum. In the meantime, a blood culture should be taken to determine the possibility of septicemia. If, within a few hours after the third dose, there is not a favorable response, as shown by temperature drop or pulse decrease, a fourth dose of 20,000 units should be given. If septicemia is manifested either by the presence of petechial hemorrhages or by positive blood cultures, the dosage should be doubled. The above dosage applies to Type I pneumococcus.

If Types II, V, VII, VIII, and XIV are encountered, the dosage should be at least one third greater. Positive blood cultures should receive a total of 120,000 to 150,000 units.

The severe degrees of pneumonia are likely to be heralded by (1) positive blood cultures, or (2) by increase in serum bilirubin, associated with liver destruction, or (3) by cyanosis, either direct or "potential"; (4) a fourth indication of severity arises when more than one fourth of the total lung area is involved, especially when the upper left lobe is involved. While the latter has been determined by sheer experience, it is probably explainable in that pneumonia usually commences in the dorsolateral position and commonly spreads

by gravity. The left upper lobe is seldom accessible except in instances where the virulence is great.

There are several reasons why pneumonia serum does not cure 100% of cases. One of the principal reasons is that the sputum to be examined frequently is obtained from the nasopharynx rather than sputum actually coughed up. Thus the specific type of pneumococcus is missed. A second but lesser reason is that the direct precipitation methods of type determination are somewhat less reliable than that of mouse injection. Third, the consolidation and the toxemia may be so advanced by the time of the administration of serum that death results from circulatory collapse, even though the pneumococci may be killed off by the serum. Few cases that are seen as early as the fourth day run the latter risk.

In addition to serum, the physiologic distortions within the patient must be righted. The fluid and salt loss must be replaced by slowly administered saline injections, with the occasional addition of 5% dextrose. Soft foods should be kept up as long as they do not contribute to intestinal distension—which is seldom.

Finally, but by no means of the least importance, severe oxygen want must be prevented. The age old myth that pneumonia patients die of heart failure should be dispelled for all time. It is true that they die of circulatory collapse, but that has scant relationship to congestive heart failure. Circulatory collapse is often predictable in advance by increased pulse rate, by the skin becoming cool and moist, by a collapse of the surface veins (in favor of the engorged splanchnic veins), by cyanosis and, shortly before death, by a fall in the blood pressure. Frequently it is dangerous to wait for cyanosis. Oxygen should be given at the appearance of the forerunner symptoms of oxygen want, namely, uneasiness, rapid heart, yawning, sighing, and irregular breathing.

A word about the mathematics of adequate oxidation. Each average breath by a normal individual is about 500 cc. and is known as the tidal air. The amount of residual air is about 1,000 cc., but before the tidal air can get into the alveoli and exchange with the residual air, it must first pass through a dead space of approximately 150 cc. Therefore, shallow breathing pneumonics, who seldom breathe over 200 cc. per breath, get only a small amount past the 150 cc. dead space. Children may breathe shallowly, and in them a 60 cc. breath will often suffice because it has to pass a dead space of only 30 cc., and this permits a complement of 30 cc. to get into the residual air whose total is only 300 cc. That 10% of new air satisfies the child. But in order for a 1,000 cc. residual air adult to get 10%, he must get 100 cc. past the dead space. That would mean that each breath would have to be approximately 250 cc. It is doubtful if many pneumonics take in that much air at any given breath. Furthermore, moisture decreases

very much the ability of oxygen to pass from alveoli to capillaries.

#### CONCLUSIONS

The remarkable ability of serum to cure pneumonia and to lessen its morbidity is demonstrable not only theoretically but by actual experience. It shows a two-to-one superiority over the older methods. Secondly, it is equally clear that practically all pneumonia patients should be hospitalized in order to provide the safeguards that are now readily available. The old dictum of its being unsafe to transport pneumonia patients to the hospital by ambulance after the second or third day of the disease is no longer tenable. Thirdly, the public health provision of serum to those unable to pay makes it almost universally available. Its costs to the well-to-do are offset by the shortened morbidity.

Our largest problem, perhaps, remains in the cases of acute bronchitis that are difficult to differentiate from actual pneumonia. Physical signs of the two are difficult to differentiate with certainty. X-rays will aid in some of them. Steam inhalations frequently will clear the plugs in the cases of partial atelectases whose signs are almost indistinguishable from pneumonia. But the most reliable criteria of pneumonia still rests with the symptoms rather than the signs. That is to say, sudden onset, chills, fever, tachycardia, and painful pleurisy remain the best guideposts. Rusty sputum greatly increases the likelihood.

Serum therapy promises not only to challenge the "Captain of the Men of Death," but also to open new vistas in the treatment of all infectious diseases.

120 N. LAFAYETTE BLVD.

### SPECIFIC PRIMARY PERITONITIS\*

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In the not-far-distant past, all peritonitis was considered as a more or less specific and primary disease. The importance of the origin of the peritoneal infection was not as clearly understood as it is at the present time. In fact, it was thought that idiopathic peritonitis was the usual form and its relationship to disease or trauma of intra-abdominal viscera was not understood. As knowledge of the origin of peritonitis in perforated appendices, trauma, ruptured viscera, etc., increased, many of the cases with peritoneal infection were necessarily classed as secondary disease. In fact, now peritonitis is nearly always found to be secondary to infection originating in disease or trauma in the neighborhood of the peritoneum.

There are still occasional types of peritoneal infection seen which, principally because they apparently do not originate in the same manner as the usual type, are necessarily considered as a primary involvement of the peritoneum.

These primary cases, although quite rare, are important because of their high mortality rate and because, in general, all forms of treatment have been inadequate and unsatisfactory, and because at present, since new drugs have come into use, there is a tendency to change the form of treatment.

The pneumococcus and streptococcus are the common offending organisms found in this type of infection. They give quite typical symptoms and are found in pure culture. These infections may, therefore, be called specific. There are two other organisms which are occasionally said to cause a specific peritonitis—the tubercle bacillus and the

gonococcus. Involvement with the latter two organisms should not be, however, classed as a primary infection. The pneumococcus and streptococcus are probably the only two organisms which produce a so-called primary specific peritonitis.

The purpose of this paper is to report four additional cases of primary peritonitis seen at the University of Iowa from 1927 to the present time, to consider the characteristics of the disease, and to estimate the value of newer forms of treatment.

The rarity of these cases is one of the principal reasons for the fact that there is still much to be learned relative to etiology and treatment. Hertzler, in 1925, found 160 cases of pneumococcal peritonitis in the literature, many of which he thought were not authentic. He mentioned 17 as authentic in America. Since 1925 many other cases have been added to this number.

Barber, McCartney and Fraser say that primary peritonitis constitutes 2 per cent of the abdominal surgical emergencies in children. Ottenheimer found a very similar proportion (1 to 2 per cent). Leopold and Castrovinci (New York City) report 11 cases and make the statement that primary peritonitis constituted  $\frac{1}{2}$  per cent of their surgical admissions in 10 years. In the University of Iowa, only .02 per cent (4 in 19,753 surgical admissions since 1927) have been diagnosed as primary peritonitis.

It seems that the discrepancy between the incidence at the University of Iowa and that reported elsewhere, particularly in Europe, must be explainable. One explanation is especially pertinent—that is, that a plus culture, although a pure culture, does not necessarily place the patient in this group. This finding may be present in any

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secondary peritonitis. Also, the symptoms of primary specific peritonitis are characteristic enough that if the history in a given case is not compatible with that diagnosis, it should not be so classified. Furthermore, it is very difficult absolutely to rule out every possible source of peritoneal contamination even at autopsy. Hertzler in 1935 made the statement in his "Surgical Pathology of the Peritoneum" that he had seen only 2 cases of specific pneumococcic peritonitis.

It is conceded by most writers that the pneumococcic infection is the more common. However, many series report about an equal division and some find a preponderance of streptococcic involvement. In our series there were two cases of each.

Practically all series reported a higher incidence of primary peritonitis in girls than in boys. Duncan reports 66 cases, 50 per cent streptococcic and 50 per cent pneumococcic. Ninety-one per cent of the pneumococcic cases were females and 66 per cent of the streptococcic cases were females. Our two streptococcic cases were boys and 2 pneumococcic cases were girls. In Duncan's series the ages ranged from 10 weeks to 13 years—50 per cent between 3 and 8. Our cases ranged from 2 to 8 years, with the average of  $5\frac{1}{2}$  years.

In the literature up to January, 1937, there were 308 cases of primary peritonitis (streptococcic), reported with a mortality rate approximating 85%.

#### ETIOLOGY

Many and varied are the opinions regarding the etiology of both pneumococcic and streptococcic peritonitis which may be found. Four principal routes seem to be the most widely accepted as giving rise to the disease. First, blood stream transmission is considered most likely by some. In support of this hypothesis are the following facts: (1) Many cases are found to have plus blood cultures in our series—50 per cent. (2) Many cases have infections elsewhere by same organism as is found in the peritoneal cavity; especially is this true of the respiratory tract.

However, these facts are not by any means conclusive evidence that the peritonitis is secondary to a blood stream infection: (1) The blood stream infection may be secondary to the peritonitis. (2) Also, infections of the peritoneum and respiratory tract may arise by some other route than by the blood stream. For instance, by direct passage of organisms through the alimentary canal from an infection in the throat. (3) Many of the cases of primary streptococcic peritonitis are preceded by a sore throat or other upper respiratory infections but most of them do not seem severe enough to produce a septicemia. (4) In the presence of a streptococcic or pneumococcic septicemia it is difficult to understand why other more susceptible regions than the peritoneum should not be involved more often, i.e., the joints. (5) It is also difficult to explain the rarity of pneumococcic peritonitis in lobar pneumonia if one accepts blood stream infec-

tion as the source. It occurs in .24 per cent of the cases (Ralleston) although the pneumococcus can be isolated from the blood stream in nearly all cases of lobar pneumonia. (6) In some cases of primary peritonitis repeated blood cultures are found to be negative.

#### GASTRO-INTESTINAL ORIGIN

The frequency with which upper respiratory infection had preceded primary peritonitis makes infection directly through the gastro-intestinal tract a possibility. However, only one of our two cases of primary streptococcic peritonitis was preceded by an upper respiratory infection. Neither of the pneumococcic cases were thus initiated.

Diarrhea preceding or accompanying the onset of abdominal symptoms is at least quite suggestive of an intestinal origin. In our group, diarrhea was present in all 4 cases ranging from 11 days before onset of symptoms of peritonitis to 2 days after the onset. Two cases first had diarrhea on the day of onset of abdominal symptoms.

The frequency of the occurrence of diarrhea in these cases suggests, of course, the possibility that this symptom may be the result of irritation of the gastro-intestinal tract by the streptococcus or pneumococcus. On the other hand, many times occurring early, it may be due to one of the summer diarrheas quite common in children and have no relation to the streptococcus or pneumococcus at the beginning. The result of this irritation of the gastro-intestinal tract from a summer diarrhea may be a greater permeability of the bowel wall to the streptococcus or pneumococcus so commonly found in portions of the gastro-intestinal tract.

Although there is nothing in the literature to indicate that a relation may exist between summer diarrhea and primary peritonitis, the seasonal incidence of the latter is suggestive. It occurs in the summer months rather than at the time of greater incidence of upper respiratory infection. Our cases all occurred between June and October. Also, both diseases are more prevalent in children.

Another fact which seems to indicate a gastro-intestinal etiological relationship is the fact that several writers report ulceration or congestion in the region of the terminal ileum often accompanied by enlarged mesenteric nodes in that region. However, these findings are not universal. In only one of our cases was enlargement of mesenteric nodes mentioned and none had localized involvement of any one portion of bowel.

Against the possibility of gastro-intestinal origin of primary peritonitis may be mentioned the generally recognized fact that the intestinal wall is impervious to organisms except through trauma and ulceration and in most cases this is not found at autopsy.

Also, many other organisms inhabit the gastro-intestinal tract and it is difficult to understand why the streptococcus and pneumococcus alone should be able to penetrate its wall.

The diffuse nature of the peritonitis as usually found is also against the possibility of a spread from a small primary focus.

#### GENITAL TRACT

It is true that the majority of these cases are found to be girls. Ascending infection via the female genital tract has probably been the most widely accepted explanation of the origin of the disease. In our cases, both pneumococcal cases were girls and both streptococcal cases were boys. Through the literature there is a higher percentage of girls in the pneumococcal group than in the streptococcal group.

It cannot be said that the genital tract cannot be responsible for primary peritonitis, but the fact that the disease occurs in boys makes it necessary to include some other mode of origin.

The fact that occasionally the inciting organism has been cultured from the vagina does not seem to add much weight to this theory and neither does the occasional finding of inflamed fallopian tubes at operation because, in the majority of cases, these findings have not been reported. There was no evidence of primary pelvic infection at operation or postmortem examination in either of the girls in our series.

Spread of infection from the respiratory tract to the abdominal cavity by lymphatics has been considered by some as a mode of transmission of the organisms but the fact that the lymphatic flow is from below upward rather than above downward makes it quite unlikely. The common complication of empyema found in primary peritonitis may better be explained on a lymphatic basis.

Altogether it seems that the only logical explanation of the origin of the disease is to say that it does not occur by any particular one of the routes mentioned but by more than one, and it is very likely that altered permeability of the bowel wall plays an important part in the etiology of these diseases.

#### SYMPTOMS

Other series in the literature all report a sudden onset of abdominal pain, nausea, and vomiting. The pain is frequently most marked in the lower right quadrant. The child is always extremely sick. Many give a history of a preceding sore throat or upper respiratory infection or of a diarrhea before onset of abdominal symptoms. In others the diarrhea accompanies the onset of peritonitis symptoms.

In our four cases there were none who had had an upper respiratory infection. One had an upper respiratory infection six months previous to peritonitis. All our cases had diarrhea as described previously. In only one case did this occur after onset of abdominal symptoms. Each of the children became suddenly very sick and three had abdominal pain at onset. Accompanying the pain in two cases were nausea and vomiting, and in the other, diarrhea. The fourth case had nausea and vomiting for two days before the onset of pain. The pain

was generalized at the onset in two cases, and epigastric in the other two cases.

In our series all were markedly tender over the entire abdomen on admission, three with generalized rigidity and one with generalized abdominal distention. In 50 per cent of the cases the tenderness and spasm were most marked in the right lower quadrant. The average temperature was 103.1° on admission with average pulse and respirations 140 and 141, respectively. The average white blood count was 26,425.

Physical findings were very much the same in our series as in all cases reviewed in the literature. All cases had generalized abdominal tenderness and rigidity. In all but one case, however, these findings were most marked in the lower abdomen. In two cases the right lower quadrant showed greater tenderness and spasms than elsewhere. In only one case was an abdominal mass found on admission. This was demonstrable rectally. This was a pneumococcal infection. There was no mention of any clinical signs of infection of the genital tract in either of the girls in our series. No attempt to culture organisms from the vagina was recorded. Two of our cases showed a plus blood culture before death—one pneumococcus and one streptococcus.

#### DIAGNOSIS

From the above, it can be seen that differential diagnosis is mostly concerned with acute appendicitis, with or without perforation. Another possible diagnosis which occasionally arises and which did arise in one of our cases is pneumonia with abdominal symptoms. Often, the differentiation can be made by a careful history and physical examination. Primary peritonitis is more likely to result in an earlier, more sudden onset of symptoms of severe toxemia or septicemia than is appendicitis and the abdominal findings are commonly more generalized at the onset than one might reasonably expect in early appendicitis.

The general picture in an early pneumonia may be very similar to that in primary peritonitis, but chest examination and x-ray findings should help to make a differentiation.

A preceding history of diarrhea which was present in each of our cases should certainly be weighed in the balance in favor of peritonitis. In one of our streptococcal cases there was a definite history of an epidemic of diarrhea among friends of the patient at the time of the occurrence of diarrhea in the child himself. One of these playmates had a bloody diarrhea. Is it possible that the diarrhea represents an enteritis which made the bowel wall more susceptible to penetration by virulent streptococci?

There are some cases which cannot be satisfactorily diagnosed by history or physical examination. It is in this type of case that abdominal puncture is very convenient in determining the offending organism. Of course, a negative culture does not definitely rule out peritonitis, and a posi-



tive pure culture is not entirely conclusive, but very suggestive.

#### **PATHOLOGY**

The intra-abdominal pathology is that of any generalized peritonitis with exudate characteristic of the offending organism. All agree that the irritation in the later stages is too generalized to warrant conclusions regarding the original peritoneal focus. In two of our cases the peritoneal involvement was most marked in the lower abdomen—one streptococcal and the other pneumococcal. However, these findings were made at autopsy in both cases—one child having died 14 days after onset of abdominal symptoms and the other 18 days afterward, thus allowing time for some localization in the lower abdomen.

Reports of mesenteric lymphadenopathy and ulceration or congestion of the terminal ileum are quite general in the literature. These findings were not prominent in any of our cases. In only one were enlarged mesenteric nodes found. These were most marked in the mesentery of the terminal ileum. Microscopically they showed mild hyperplasia.

Search has been carefully made many times for any evidences of perforation, even if minute, but none have been found. In the two girls no pathology was noted in the pelvis which could not be explained as a part of the general picture.

There is the same tendency to localization of the general peritoneal infection late in the course of the disease that may be found in other types of peritonitis and it is, therefore, in this later stage of the disease that surgical treatment is more likely to be indicated. This is particularly true of pneumococcal peritonitis because of the greater tendency to localization.

The most common organisms responsible for these infections are the Type 1 pneumococcus and the streptococcus hemolyticus. However, our streptococcal cases both were streptococcus viridans. One of our pneumococcal cases was not typed. The other was Type 1.

Blood cultures are often positive for the offending organism. One pneumococcal and one streptococcal septicemia were found in our group. Interestingly enough, the girl with a positive blood culture for pneumococcus was the only case to live.

#### **COMPLICATIONS**

The most common complication is empyema. This was true in our group. Seventy-five per cent of our cases had this complication, one pneumococcal and two streptococcal. One of the latter cases had bilateral involvement. In two of these cases the organism was cultured from the pleural cavity.

Pneumonia is a less frequent complication, being present in 25 per cent of our cases.

Other complications in our group were serofibrinous pericarditis and erysipelas in one of the streptococcal cases, severe intra-abdominal hemorrhage (trauma?) in one, and pelvic abscess in two cases (both pneumococcal).

#### **MORTALITY**

The last statement above regarding the complication of pelvic abscess in the two pneumococcal cases indicates to some extent the relative mortality of peritonitis due to streptococcus or pneumococcus. There seems to be, as one might expect, a greater tendency to localization in the latter type of infection and this is a great factor in producing a relatively lower mortality rate in the pneumococcal infection.

Duncan reports 80 per cent mortality in the streptococcal cases and 60 per cent in the pneumococcal cases, and 70 per cent combined. Of our streptococcal cases, 100 per cent died, and 50 per cent of the pneumococcal cases died, with a total mortality of 75 per cent. In those cases with positive blood culture, Duncan had a mortality of 87.5 per cent and in our series one case survived, leaving a mortality of 50 per cent.

#### **TREATMENT**

Our series of four cases is too small to use as a general basis for plans regarding treatment of primary peritonitis. None of the cases in this series has occurred since the use of sulfanilamide and sulfapyridine has become established, all being prior to 1937. Only two of our cases were operated—both pneumococcal in type.

There is a quite general agreement that primary peritonitis in its early stages is best treated conservatively as any other peritonitis and that surgery is indicated only for drainage after localization has occurred.

There are several good reasons for conservative treatment in early cases: (1) there is no intestinal leak to stop by operation; (2) there is no viscous to be removed; (3) it is impossible to drain the general peritoneal cavity; (4) operation may break down the last local or general resistance of the patient; and (5) incision of any infection before localization may increase the hazard.

Since the use of sulfanilamide and sulfapyridine has become established, there have been 10 cases of streptococcal peritonitis reported which have been treated with sulfanilamide and prontosil with a mortality rate of 60%, as compared with the previously stated rate of 85%. This is a marked improvement. There have been no reports of the treatment of any cases of primary pneumococcal peritonitis with sulfapyridine, although Sager reports recovery of one case of pneumococcal peritonitis using prontosil.

Following are some rules of conduct which, I believe, summarize the present opinion regarding treatment:

1. Paracentesis should be of invaluable aid in differential diagnosis of streptococcal and pneumococcal infections.

2. Sulfanilamide or sulfapyridine should be given as soon as the causative organism is known.

3. Surgically, if the diagnosis is certain and the infection is diffuse, treatment should be conservative.

4. If diagnosis is certain but localized, operation is indicated.

5. If diagnosis is uncertain, especially if acute appendicitis is considered, a rapid exploratory laparotomy should be done, followed by sulfanilamide or sulfapyridine as indicated by culture.

6. Supportive treatment should consist of the usual treatment for peritonitis, including transfusions.

#### SUMMARY

1. Primary pneumococcic and primary streptococcic peritonitis are not as common as one would be led to believe by the relatively large number of cases reported in the literature.

2. Because of the relative infrequency of the disease and the consequent meager experience of any one man with it, there is much yet to be learned regarding its etiology and treatment.

3. Origin of the disease cannot be ascribed to any one source, i.e., bloodstream, gastro-intestinal tract or genital tract.

4. The possibility of summer diarrheas in children as a factor in the production of peritoneal infection is suggested.

5. In many cases, paracentesis should be carried out as an aid in diagnosis.

6. The treatment is essentially conservative and the new drugs, sulfanilamide and sulfapyridine, should be given as soon as the offending organism is known.

7. Although the disease is rare, it behooves us to be on the alert for it, as treatment in the future is destined to be more successful than in the past.

#### CASE REPORTS

E. L., a girl of 5 years, was first admitted June 21, 1934, with history of onset of anorexia with intermittent epigastric pain four days previous to admission. She had also vomited the first day, and could not sleep that night because of pain. Symptoms continued the second day with onset of diarrhea—stool q. hr. This diarrhea increased to q. 20 minutes on third day—a slimy stool but with no blood. Pain had become more generalized by time of admission.

On admission she was a very sick appearing little girl. The temperature was 103.2°; pulse 148 and R 44; WBC 22,400. The tonsils were enlarged but not inflamed. The abdomen was diffusely tender and rigid; no masses were noted rectally but definite tenderness was present on rectal examination.

An exploratory operation was done on the day of admission. Yellow pus covered all visible peritoneum. The peritoneum was injected over the entire abdomen. Most of the pus seemed to come from the pelvis. The appendix was removed. The pus cultured type 1 pneumococcus.

The temperature was 106 the first post-operative day. The second post-operative day Type I and II anti-pneumococcic serum was given repeatedly in 10,000 and 20,000 unit doses. 100,000 units were given in 2 days. Convalescence was com-

plicated by left empyema and pelvic abscess which were drained on the seventeenth and twenty-third post-operative days, respectively. The patient was discharged on the forty-fourth post-operative day.

A letter from the mother 2 years after discharge stated that the patient had no difficulty except that she tired easily. However, check-up at that time showed her to be in perfect health except for tonsillitis which was to be treated.

H. R., a two year old boy, was admitted September 9, 1935, after an illness of three days. He gave a history of diarrhea for two days, two weeks before admission. Several playmates also had diarrhea at that time—one with blood. Three days before admission nausea and vomiting had started. The day before admission he complained of marked generalized abdominal pain.

On admission he had a very septic appearance, rapid respirations with expiratory grunt and dilatation of nares with each inspiration. There was generalized abdominal tenderness and rigidity was more marked in the lower abdomen. The temperature was 102.4°; pulse 140; R 49; WBC 34,100. X-ray films (wet) reported early pneumonia, but this interpretation was corrected by the dry films. He was treated conservatively (without serum) for peritonitis. He developed right pleural effusion from which streptococcus viridans was cultured. Blood cultures showed the same organism. The course was gradually downhill and he died on the 15th hospital day.

Autopsy showed general subacute peritonitis, bronchopneumonia, subacute pleuritis with effusion, diffusely enlarged mesenteric nodes, and normal appendix. Streptococcus viridans was cultured from the peritoneum, right pleural cavity and bloodstream.

B. W., an eight year old girl, was admitted October 4, 1929, to the pediatric service after two weeks' illness characterized by generalized abdominal pain, nausea and vomiting. Diarrhea was present for the first five days followed by constipation. Pain was somewhat more marked in the right lower quadrant.

On admission, she was dehydrated and very sick. The abdomen was rotund with four-plus rigidity on the entire right side and three-plus on the left. There was four-plus right lower quadrant tenderness. Rectal showed a fluctuant midline mass. This was drained rectally soon after admission. The patient died, however, soon afterward, with probable diagnosis of ruptured appendix with abscess.

Autopsy showed a purulent peritonitis most marked in the lower abdomen, periappendicitis, and no perforation or other primary lesion was found. Pneumococcus was cultured from the peritoneum.

B. Z., a boy, age 7, was admitted to the pediatric service on June 30, 1927, because of edema of the



eyes, neck, abdomen and legs, which appeared following an upper respiratory infection three weeks previous to admission. On the day before admission diarrhea first appeared and the patient developed pain in the epigastrium. He was drowsy and toxic. A diagnosis of nephrosis was made.

On admission the temperature was 104°; pulse 140; R. 53; WBC 29,000.

The abdominal tenderness increased on the day of admission and became most marked in right lower quadrant. The pain was very severe in the right lower quadrant on the seventh day after admission and the patient vomited.

He developed erysipelas of one thigh and a pleural friction rub.

His course was rapidly downhill and he died on his seventh hospital day. Autopsy showed bilateral fibrinopurulent pleurisy, pericarditis, chronic parenchymatous nephritis and fibro-purulent peritonitis. *Streptococcus viridans* was cultured from the peritoneum.

### DISCUSSION

GERALD F. KEMPF, M.D. (Indianapolis): I think Dr. Ingalls has covered the subject with his cases about as well as might be done. The only thing I have to say in regard to the origin of the disease is that in all probability it is secondary to some other infection. It is probably no more primary than the so-called idiopathic pneumococcal or streptococcal pericarditis or meningitis. There must be some way for these organisms to get into the peritoneal cavity. Any one of the routes suggested by Dr. Ingalls might be the mode of entry.

I have seen but one that I could call a real case of specific primary peritonitis, and this was in a man about thirty-five years old who came down with the symptoms of acute appendicitis. I think I helped in talking the surgeon into operating upon the patient. There was a generalized peritonitis with a serous exudate containing hemolytic streptococcus and no apparent source of infection. This was before we had sulfanilamide, and the man died within three days.

The other patients that I have seen with the symptoms of primary peritonitis have all, at the end of four to six days, developed scarlet fever. One might say that they were perhaps cases of surgical scarlet fever. On the other hand, one of the patients had a definite history of exposure to scarlet fever before developing peritonitis. One of the patients was opened as an acute appendicitis, and only a general redness of the whole peritoneal surface was found. The appendix was no more red than the rest of the peritoneal surface. The girl developed scarlet fever at the end of about four days and died from the disease.

It seems to me that the most important question in connection with this disease in the past has been whether or not the abdomen should be opened. Before we had sulfanilamide, if the abdomen in primary peritonitis was opened early, the chances

were that the mortality would be one hundred per cent.

On the other hand, as Dr. Ingalls has said, many of these patients have pain in the lower right quadrant, and they often suggest acute appendicitis, from which they can not be distinguished.

Since the advent of sulfanilamide, we have had a case that began four days before and was admitted as peritonitis, with absence of bowel sounds, distended abdomen, terrific pain, high fever, and high white count. The description he gave fitted the case. Treatment for peritonitis was instituted. The next day the woman complained of sore throat, and we found a scarlet rash. She was given sulfanilamide parenterally and gastric lavage was continued. Intravenous fluids and a blood transfusion were given. She made a rapid recovery without any evidence of there having been an appendiceal mass or pelvic infection to account for the peritonitis that she had.

Since we have sulfanilamide, I would think if the symptoms pointed to an acute appendix, one might now dare do a rapid exploration. If the symptoms were those of generalized peritonitis, the usual treatment for peritonitis certainly should be instituted and sulfanilamide given or, if the abdominal puncture showed pneumococcus, sulfapyridine should be given.

The best method of administering the sulfonamide in hemolytic streptococcal infections is to use an .8 per cent solution of sulfanilamide and give the equivalent of about a grain to a pound of body weight for at least the first two days and, after that, approximately two-thirds of a grain per pound of body weight, more or less depending upon the clinical course of the disease and the blood concentration.

If the case were pneumococcal, of course, sulfapyridine would be indicated because sulfanilamide probably has little effect on most of the types of pneumococcus. Sulfapyridine would have to be given in these cases, probably rectally. A relatively high concentration can be attained by rectal administration. In order to be sure that this drug is getting into the blood stream, however, the concentration should be determined, because the absorption of sulfapyridine is uncertain.

The sodium salt of sulfapyridine has been used. If available, it can be given intravenously.

I do not think there is any doubt that the advent of these drugs will simplify the treatment of this type of case and certainly will minimize the risks that one might meet in operating one as acute appendicitis.

E. E. PADGETT, M.D. (Indianapolis): I think Dr. Ingalls has done us a good service by calling our attention again to this condition which, fortunately for us and our patients, is rare, but which we do meet occasionally. He has done two things that are well worth while. He has called our attention to the fact that a good many of these cases were preceded by or accompanied by an acute sore throat.

Now, we people who are used to jumping onto these abdomens, frequently, when there is trouble inside, have finally learned that a child who has just gone through an attack of sore throat is likely to have some tenderness, temperature and rigidity over the appendix region. If there is any place you are ever warranted in a little delay in handling an appendix, it is in the child who has just had a sore throat, because if you go in and remove the appendix, your pathologist will tell you the appendix itself is normal, but there is a lymphadenitis around it, and, very naturally, there would be following a sore throat. Everything being equal, it will recover without the operation, in a great many instances.

The other thing that is, of course, a question to debate, is the etiology. He has rather emphasized what I hoped he would emphasize, that is the possibility of penetration through the intestinal wall of these organisms. We are used to thinking that such does not occur normally, and normally it does not occur. But if the cases have had a diarrhea, you are not dealing with a normal intestinal tract; you are dealing with a diseased intestinal tract. Knowing the constant presence of the streptococcus and pneumococcus and, if you please, the tetanus organism in the lower bowel, the wonder to me is that, in our appendectomies, and our diseased apendices and diseased heads of the cecum, we do not get more of these infections and consequent trouble than we do.

After working around at this job for a good many years, I can say truthfully that I have seen only one case of tetanus following an appendectomy. I wonder why we don't see more?

Now with this diseased intestine found following diarrhea, it is quite possible for this organism to penetrate the wall and start its trouble from that source. While I grant the existence of the other two features in etiology, I certainly believe in the case that had a diarrhea that is much more likely to be an etiological factor.

H. O. BRUGGEMAN, M.D. (Ft. Wayne): There is a type of primary peritonitis, pneumococcal, in which there is no focus elsewhere in the body. The English writers for years have recognized it as a distinct disease. It occurs only in girls, because the portal of entry is through the fallopian tube. It has an age limit, two to ten. It doesn't occur before two because epithelial separation of the vagina isn't complete. It doesn't occur after ten because at that time the vaginal secretion is acid. The pneumococcus doesn't penetrate acid secretions. It occurs particularly in poorer families in which there is intimate contact of children who have running ears and sore throats with the child who takes down with pneumococcal peritonitis. That is a distinct primary type, a case of which I reported to this Association many years ago. I have seen several cases. I think they are much more common than we have been led to believe this

morning, because most of them are operated upon for appendicitis. If a patient dies, "he died with a fulminating case of appendicitis." We do not make routine cultures of the bellies in acute appendicitis cases.

The case which I reported years ago started out that way. I operated upon her in the misconception that it was appendicitis or, rather, on the referring physician's diagnosis.

We got a pure culture of pneumococcus type II from the abdominal exudate. The child went along, developed pneumonia. We got pneumococcus type II out of the sputum. She got a middle ear disease; the ear was opened. We got pneumococcus type II. We got a parotitis on the other side. We got type II out of the culture. The child made a complete recovery.

A few weeks later I saw what I called a secondary pneumococcal peritonitis in which a boy developed peritonitis secondary to empyema. That is the only case of a left-sided subdiaphragmatic abscess I have ever seen.

The important distinction, if there is any, between primary and secondary pneumococcal peritonitis is the fact that in secondary there is no indication ever to enter the abdomen until complete localization has occurred. It is perfectly legitimate to operate on the primary cases because you may be overlooking an appendix.

I challenge any surgeon in Indiana or any place else to make an absolute diagnosis between a pelvic appendix in a girl between the ages of two and ten and a case that has primary pneumococcal peritonitis.

Dr. Felsen at the general meeting this morning gave a description of how streptococcal peritonitis occurs in sore throat. He said it was by way of the blood stream, an embolic process in the wall of the intestine, a small secondary perforation of the intestine, and the development of the so-called primary streptococcal peritonitis.

DR. INGALLS (closing): I don't know that there is much else to say. The reason, of course, for presenting these cases was to have the findings recorded along with the findings that have been reported by others and to bring to the attention of the meeting the fact that there is a disease of that nature which in recent years has become more amenable to treatment than it formerly was. These were the main reasons for desiring to bring the disease to your attention. I think it is quite rare.

After looking over a good many cases reported in the literature, I don't feel that they are all primary cases. I agree with Dr. Bruggeman that a great many of them may be secondary to other disease, but until we can find the primary cause we will have to consider them as primary.

That is the main distinguishing feature between a primary and secondary peritonitis, whether or not there is a definite, primary lesion at the source.



## COMPLICATIONS FOLLOWING GENERAL ANESTHESIA\*

FRED A. THOMAS, M.D.

INDIANAPOLIS

It was about two years ago that I heard a paper entitled "Ether" written by a fellow anesthetist of Indianapolis. At that time he said "Down with the old and on with the new." I wonder if he realized that he had a front row seat to an argument that was to follow a year or so later.

It is not my purpose to uphold or condemn any anesthetic agent, but to try to give you some of the complications that I have encountered with the use of most of them.

As all of you are familiar with ether, nitrous oxide and ethylene, let us lead up to cyclopropane which is our latest anesthetic agent.

In the last year there has been quite some agitation against the use of cyclopropane, especially so in some sections of the country. If I have not been misinformed, some of our leading clinics have discontinued the use of cyclopropane except in surgery of the chest. Most of the objections at first were due to the explosive properties of cyclopropane. There have been reported some twenty explosions with this agent in the last year. I will admit that cyclopropane is explosive—about in the same proportion as ethylene—but let me remind you that the superintendents of hospitals who think they have eliminated all danger of explosions because they have outlawed cyclopropane and ethylene are apt to have a sorry awakening. As you all know, nitrous oxide, oxygen and ether make a very explosive mixture. Also, ether plus oxygen gives us an explosive mixture, perhaps not as violent as the other two, but still enough to cause the death of the patient and injury to the operating team, plus the possibility of a fire.

But there has been another side to this agent called cyclopropane, and that is this: Cardiac damage, so called, and a tendency to atelectasis or massive collapse.

Massive atelectasis is the massive collapse of lung tissue, or it may involve any part of lung from a part of a lobe to an entire lung. Also, there may be areas, large or small, in both lungs.

Due to a depressed respiration, a main bronchus may become filled with mucus of such a consistency that it will not be dislodged by the depressed respiratory effort. Then the area of lung below the obstruction is shut off from respiration, becomes inactive, and the air behind the obstruction is absorbed. This condition may happen during the operation. It may not be noticed at this time because of the high oxygen content of the anesthetic mixture. As soon as the mask is removed the patient will have labored breathing and cyanosis

will appear. Death may come in a few minutes or in a few hours, depending on the amount of lung tissue involved. If the collapse is not enough to cause death, a pneumonitis may occur which may cause death after a few days.

In depressed respiration during the operation, it is wise to stimulate respiration by adding carbon dioxide for short periods. This stimulated respiration tends to dislodge the mucous plugs. It is also advisable to hyperventilate a patient at the end of the anesthetic.

If this condition occurs postoperatively, it is treated by giving carbon dioxide and oxygen for three or four minutes to get a vigorous hyperpnea. Oxygen is administered to compensate for the amount of lung tissue involved. Enough oxygen must be given to keep the patient pink. If after the use of CO<sub>2</sub> and oxygen the condition still exists, it is well to bronchoscope the patient. Bronchoscopies should be done in time to aid the patient and not as a last resort. If the atelectasis does not show signs of improvement within a few hours after this treatment, then the bronchoscopist should be called.

Opiates are also contraindicated in this condition because of their depressing action on the respiration.

## CASE REPORTS

**Case 1.** Mrs. M. P., age 24 (1936). This patient had two children living and in good health. She was about eight months' pregnant (this was her third pregnancy) but said she had not felt well during this pregnancy. She complained of nausea and vomiting, headache, and later, vaginal bleeding.

Diagnosis of placenta previa was made and a Cesarean section advised. As a preanesthetic the patient received morphine gr.  $\frac{1}{4}$  and atropine gr. 1/150 at 9:30 a.m. and seconal gr. 3 at 9:45 a.m. Patient went to surgery at 10:30 a.m. Cyclopropane was administered. Temperature was 98.8, pulse 82, respiration 20; blood pressure 150/90; condition good. A classical Cesarean section was done and living baby girl twins were born. The duration of the anesthetic was 26 minutes. The patient left the operating room in good condition and was talking when put to bed at 11:00 a.m.

Patient progressed satisfactorily but around midnight she became restless and complained of shortness of breath. She became cyanotic and oxygen was given. She died rather suddenly soon thereafter.

Autopsy was not obtained but this was either a cardiac death or death due to embolism.

**Case 2.** Mr. G. E., age 34 (1939). Patient had dyspepsia, eructations and pain in the upper right

\* Presented before the Section on Anesthesia of the Indiana State Medical Association at the Fort Wayne session, October 11, 1939.

quadrant for the last four years. Diagnosis of nonfunctioning gall bladder was made.

Preanesthetic medication: Sodium amytal gr. 6 at 8:30 a.m. Morphine sulphate gr.  $\frac{1}{4}$  and atropine gr. 1/150. Patient went to surgery at 10:00 a.m., April 24, 1939. Carbon dioxid and oxygen were given to patient, and then straight drop ether was given to induce the anesthetic. Drop ether anesthesia was maintained during the rest of the anesthetic. The gall bladder and appendix were removed. Duration of anesthesia was one hour.

The condition of the patient at the end of the operation was excellent. The patient was hyperventilated and taken to his room. He progressed well until 5:30 p.m. of the following day, when he complained of difficult breathing and pain in his chest. Upon examination, we found patient dyspneic, with rapid pulse, and slightly cyanotic. Excursions of the right chest lagged those of the left. No breath sounds were heard in the right chest. Percussion was slightly more dull in the right chest, especially in the bases. When the patient was turned on his left side he became very restless, cyanotic and short of breath. Temperature was 102 degrees and pulse rate 140. Hyperventilation was started and in three hours the temperature was 101 and pulse 110.

X-ray at the bedside showed marked general haziness in the lower half of the right lung, also a slight amount in the apex of the upper right lobe. There was no displacement of mediastinum. Condition was due to a partial atelectasis. He continued to improve and in two days his condition was normal.

**Case 3.** Mrs. O. W., age 64 (1939). Patient noticed shortness of breath on exertion, and upon examination was found to have a toxic goitre. She was prepared for thyroidectomy. Preanesthetic medication consisted of nembutal gr. 3 at 7:00 a.m., morphine gr.  $\frac{1}{4}$  and atropine gr. 1/150 at 8:00 a.m. Ethylene and  $C_2H_4$  were the anesthetic agents used. Duration of anesthetic was 75 minutes. Patient's condition during anesthetic was good.

Because of the patient's general condition, an oxygennaire was awaiting her on return to the room. On the way to the room the patient became very cyanotic and respiration was labored. Oxygen was started at once. Examination revealed no breath sounds in the right chest. Hyperventilation was started. X-ray at the bedside showed the right chest dense throughout. There were only a few areas of aeration. There was slight displacement of the trachea to the right, and the picture was that of massive collapse.

In a few hours the temperature was 103 and pulse 130. The patient was in a serious condition.

Hyperventilation was kept up regularly. Patient was very restless and irrational. Her condition gradually grew worse and pulse became irregular and weak. At the end of 40 hours the temperature was 105.2, pulse 146, respiration 42, and she died shortly thereafter. This case, I am sure, had a

massive collapse on the operating table, but due to the high oxygen tension of the anesthetic mixture, cyanosis was not noted until the mask was removed.

Oxygen was awaiting her, or death might have occurred shortly after reaching her room.

**Case 4.** Mr. F. P., age 40 (1939). Diagnosis: Left pyonephrosis; streptococcus infection.

Preanesthetic medication: Seconal gr. 3 at 7:00 a.m. Morphine gr.  $\frac{1}{4}$ , atropine gr. 1/150 at 7:00 a.m. Cyclopropane anesthesia with patient in fair condition, after removal of left kidney. Duration of anesthetic 150 minutes.

At termination of the anesthetic the patient vomited a large amount of fluid gastric content. He took a deep breath at the same time and aspirated some of this fluid.  $CO_2$ ,  $O_2$  hyperventilation was started at once upon return to his room.

Eight hours after surgery the patient complained of pain in the chest. Temperature was 101 degrees, pulse 115. Rales over areas of both lungs. Profuse perspiration. Hyperventilation continued. At 6:00 a.m. patient's temperature rose to 105 degrees, pulse 120. This was a case of pneumonitis from aspiration, and at 12:00 noon the temperature was down to 99 degrees.

Two days later the patient developed a typical case of pneumonia. Streptococci were found in the sputum. It ran its course and temperature came down by lysis on the tenth day following onset of pneumonia. This patient was a seriously ill man but eventually made a recovery.

These are a few of the complications of general anesthesia that might occur to any anesthetist at any time. As you see, they include ether, ethylene and cyclopropane.

We, therefore, have not found the perfect anesthetic agent as some seemed to think when cyclopropane was first brought into use.

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## DISCUSSION

MERRILL E. LISTON, M.D. (South Bend): It seems almost impossible to discuss, in ten minutes, a problem so far reaching as this one. However, my actual experience with the various complications which may arise after the anesthetist assumes his duties is, relatively speaking, only "a ten minute experience."

While most of the very serious complications occupy little of our actual practice, most of our thought and practice should be spent in the study of the pathology, prophylaxis and therapy of such states or conditions.

The scope of this problem has been outlined in various and sundry ways. Should we discuss it as (1) a Pilgrim's Progress—what the anesthetist should expect and prepare for as he guides the patient through the land of "Narcosis," (2) in order of actual incidence, or (3) failure of systems or their parts?

During my first experience in this field of endeavor, I found myself trying so desperately to



keep so many signs and warning signals in mind that I was ill at ease most of the time. It appears to me now that, out of this chaos, the problem simmers down to (1) preanesthetic approach to the basal rate without undue depression of the respiration; this leads to (2) a *smooth induction* with the minimum sympathetico-mimetic stimulation. This guards against the cardiac irregularities which lead up to ventricular fibrillation.

When using cyclopropane, one must watch closely for cardiac irregularities. They are usually preceded by tachycardia or bradycardia and are usually transient if the cyclopropane tension is immediately reduced. I usually add a "squirt" of ether vapor to help break up an irregularity. I have had at least two cases of *two-one block* yield immediately to this therapy.

Laryngospasm, all too often a dogged and embarrassing companion, may be encountered here for the first time. It is usually due to one or more of three things: (1) "pushing" the concentration of irritant gases, (2) accumulation of CO<sub>2</sub>, (3) reflex from surgical manipulation, especially in region of coeliac and pelvic plexuses. It is up to the anesthetist to determine the cause and eliminate it.

*Physiologic maintenance:* The most important gas in the anesthetic mixture is *oxygen*. The vital centers do not tolerate the sub-oxic state very long. O<sub>2</sub> must be supplied through an *unobstructed airway* and the tidal volume must be adequate.

A partial obstruction not only prevents adequate supply of both O<sub>2</sub> and anesthetic gas but it so distorts the dynamics within the chest that the stage is set for pulmonary edema, with subsequent overloading of the cardiac and the circulatory system.

Not only must sufficient O<sub>2</sub> be supplied in the anesthetic mixture, it must get into the alveolae and from thence into the blood. There must be an active alveolar ventilation. There must be no areas of stagnation of gases in the alveolae lest absorption lead to areas of atelectasis and these in turn to pneumonia or perchance massive collapse. To prevent inadequate ventilation, the pre-medica-

tion should (1) reduce mucous secretion, and (2) prevent psychic trauma without reducing the tidal volume too greatly.

It seems to me that periods of respiratory depression must be prevented by "lighter" doses of pre-medication given far enough in advance of the operation to have reached their maximum action, i.e., at 7:00 a.m., pento-barbital sodium gr. 1½; 7:45 a.m., morphine sulphate gr. ¼, scopolamine gr. 1/200 if the case is scheduled for 9:00 a.m. I have no CO<sub>2</sub> on my gas machine. I depend on the metabolic processes to accumulate at least a threshold value if O<sub>2</sub> is supplied to the tissues.

Pre-medication must be personalized, not only to have the desired pre-anesthetic effect but to so gauge the drugs, dosage and times of administration that the post-anesthetic depression will be minimal.

The period of recovery should be well guarded with special attention given to prevention of total respiratory obstruction or aspiration of emetic debris. So manage the case, if possible, that the "emetic period" may be taken care of before the patient leaves the friendly equipment of the operating room—the suction and table which makes the extreme Trendelenburg position readily available. Maintenance of O<sub>2</sub> tension and the circulatory equilibrium is especially necessary in the case where cyclopropane is used. A postoperative O<sub>2</sub> rich atmosphere is often of great value. Not only should there be a gradual change from a warm moist O<sub>2</sub> rich atmosphere, but all changes from radical positions, i.e., Trendelenburg, should be gradual.

It will be noted that I have not mentioned explosives. This is *the* subject of discussion today. These are so dramatic that they are headline news and as such have a marked influence on the practice in certain localities. Our thought today has been focussed on commonplace complications, but since "most common things most commonly occur," time spent in their consideration is not in vain. Of one thing I am certain, the management of the case, not the agent used, affects profoundly the post anesthetic course.

### ABSTRACT

#### OXYGEN TENT VALUABLE IN TREATMENT OF PNEUMONIA WITH SULFAPYRIDINE

Intense nausea and vomiting, which frequently accompany treatment of pneumonia with sulfapyridine, have been relieved by placing the patient in an oxygen tent for half an hour before and half an hour after giving the drug. William Whitehead, M.D., and C. C. Carter, M.D., Juneau, Alaska, report in *The Journal of the American Medical Association* for June 24.

Not only did such use of an oxygen tent make possible the retention of sulfapyridine in cases where vomiting had been a reaction from the drug but it also made unnecessary the use of digitalis as a means of stimulation which, the authors say, they had previously used in all patients with pneumonia. The oxygen tent regimen definitely decreased the hospital stay.

*To All Our*

*Readers . . .*

*A Very Merry*

*Christmas*

# THE JOURNAL

OF THE

## INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL  
PROFESSION OF INDIANA

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DECEMBER, 1939

## Editorials

### MEDICINE'S BILL OF RIGHTS

Tuned to the trend of the times when democracies are restating their fundamental purposes and basic principles, the Board of Trustees of the American Medical Association announced an eight-point platform of positive action to an enthusiastic gathering at the annual fall conference of state secretaries and medical journal editors held at the American Medical Association headquarters in Chicago, November 17 and 18, 1939. This platform, which appears here so that it may be read by every Indiana doctor, may well be called Medicine's Bill of Rights for the American people.

Streamlined, positive, direct, clean cut, it tells in a few short paragraphs the aims, purposes and basic program of procedure upon which to plan future action, stressing what the profession favors—not what it opposes.

Like H. G. Wells' recent statement which he calls "The rights of man brought up to date," in which he defines England's war aims, the statement from the American Medical Association gives every doctor and every medical organization principles to fight for and objectives to conquer. H. G. Wells says: "Every man is entitled to nourishment, housing, covering, medical care and attention, a sufficient education to make him a useful and interested citizen." The American Medical Association calls for "the prevention of disease, the promotion of health and the care of the sick on proof of such needs, and the extension of medical services to all the people."

Perhaps all this sounds strangely familiar to us here in Indiana. Perhaps we Hoosiers sense a

### THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American system of democracy.

philosophy of thought in these eight new proposals calling for positive, aggressive action as opposed to a defensive attitude heretofore so often associated with American medicine—a positive philosophy which harks back to the now nationally recognized "Indiana Plan." Perhaps it isn't going too far to say that the relationship in thought and in precedence between the resolutions of Virginia's House of Burgesses that later developed into the Bill of Rights of the Constitution is not greatly different than the relationship between the Indiana Plan and the thought back of the new eight-point platform adopted by the American Medical Association.

The platform calls for leadership on the part of each local county and state medical organization, and so it goes without saying that the Indiana profession will unequivocally subscribe and do its part in translating this platform of principles into definite action here in our own state.



## TREATMENT OF TRACHOMA

Are we nearing the solution of the problem of the proper treatment of trachoma, a disease that long has occupied the attention of ophthalmologists throughout the greater part of the world? Recent studies indicate that a great per cent of these cases can be successfully managed through the administration of sulfanilamide; at least reports from this treatment during the past few months seem to warrant its continued use and study.

Trachoma, long recognized as one of the most insidious foes of good vision, has wide distribution. It is prevalent in the central portion of this country, and among the Indian population throughout the West it is common. The late Dr. J. W. Stucky of Lexington, Kentucky, on a vacation jaunt into the mountain areas of eastern Kentucky, was appalled by the prevalence of the disease in that section of his native state. He reported that those residents confidently expected, when they reached the age of fifty, to have some degree of blindness in one or both eyes, caused by the infection commonly known as "sore eyes." He was so much impressed that for many years, until his death, in fact, he spent several weeks of each summer in conducting a trachoma clinic in those sections. He enlisted the support of the United States Public Health Service which organization assigned Dr. Schereschewsky to that service and he remained in that work for many years.

Some time later, Dr. L. Webster Fox, of Philadelphia, who had advocated the operation known as tarsectomy as a treatment for trachoma, spent several summers among the Hopi Indians in Arizona using his operation in hundreds of these cases. Grattage, as advocated by Dr. John N. Wheeler of New York had its day, as did many other forms of treatment, yet trachoma continued to be a menace in many sections of the country. For many years trachoma was called "the filth disease," because it was most prevalent among those who were poorly housed; however, it rarely was found in the Negro race even in sections where very poor housing was the rule.

Despite opinions to the contrary, trachoma is prevalent in Indiana, particularly in the southern section of the state. The State Department of Public Welfare recently reported that trachoma accounts for ten per cent of the blindness in Indiana making it one of the top three (with syphilis and cataract) causes of blindness among our population in Indiana.

Sulfanilamide was first used for trachoma by Heineman in 1937 and since that time several articles have been published regarding its clinical application in this disease. Richards, et al., in the *Archives of Ophthalmology* (volume 21, page 577) cites his experiences in many cases, as does Hirschfelder in the *American Journal of Ophthalmology* (volume 22, page 299). Loe in *The Journal of the American Medical Association* for Octo-

ber 8, 1938, tells of his experiences in many cases, practically all of which terminated favorably. The Mayo Clinic *Bulletin* for October, 1939, reports eleven cases treated with neoprontosil, in almost every one of which a very favorable result is reported. Astonishing improvement in chronic trachoma when treated with sulfapyridine is reported by Drs. Spearman and Vandevere in *The Journal of the American Medical Association* for November 11, 1939.

The generally accepted dosage of sulfanilamide seems to be one-third grain per pound of body weight, daily for the first week, and reduced to one-fourth grain for the second week. Most observers have used the treatment over a period of but three weeks. The Mayo Clinic reports using neoprontosil in those cases in which sulfanilamide caused undue symptoms such as nausea, headache and vomiting. While case reports have not been made in sufficient numbers to establish a definite therapy in this disease, it does seem that we are well on the way to finding a method successfully to combat this age-old infection.

## THE HOSPITAL INTERN

What is the reaction of the intern in the modern hospital? What does he think about his training therein and what does he think about the various members of the staff with whom he is in contact? What notions of professional ideals are instilled within him during his internship and his residency?

During the past few months we have heard a few interns express themselves on these points and the expressions are not wholly favorable. They seem to have gained the opinion that much of the medical practice in our hospitals is of the "economic" variety and that too many medical men are interested almost exclusively in the financial side of practice.

They make the criticism, and not without some justification, that intern training is not what it is cracked up to be, for the interns too often are simply hand-servants and receive very little training.

At a recent meeting of the Association of American Medical Colleges in Cincinnati, Dr. Basil C. MacLean, director of Strong Memorial Hospital in Rochester, New York, used some rather strong words in discussing a paper by Dr. R. C. Buerki. Just how the matter got into the public press is unknown, for Dr. MacLean writes that "For the life of me, I do not know where reporters get their material," but we found a rather complete copy of his discussion in at least four newspapers, including the *New York Times*. His comment was so virile and, to our notion, contained so many salient features that, with Dr. MacLean's permission, we quote it in its entirety:

"What facilities have we today in this country and Canada for training interns? The last

A.M.A. list of 734 hospitals included 7,832 approved internships. We all know that a considerable percentage of these internships aren't worth a tinker's dam. There are listed 3,951 approved residencies in 518 hospitals and we know that a large percentage of these can be rated 'very good.' If one is brutally frank, however, in appraising the existing facilities for hospital resident staff training in this country and Canada, he must admit that too often these facilities, inadvertently or otherwise, are provided as economic assets rather than as educational responsibilities. Too many hospitals are geared to the demands of the doctors who bring in the largest number of pay patients. There are too many internships where a young medical man does indifferently and without supervision the drudgery of laboratory work and record keeping for attending doctors who regard him not as a pupil or apprentice, but as a potential rival in medical practice. What hope is there of getting training worth the name in a hospital where medical practice is far more economic than scientific, where the patient's history and physical examination combined is recorded in half a page, where post-operative infections and surgical shock deaths are not unusual and where, without restriction, any possessor of the mystical M.D. is permitted to butcher his way into the belly of a trustful but unsophisticated patient? What hope is there of restricting surgery to surgeons so long as a simple appendectomy has the same income tax value as five complicated pneumonias? It is an economic problem in hospital and medical organization. It is also a problem of rating. The Specialty Boards offer a gleam of hope. They will need the support, however, of an intelligent public or of a compulsory system of licensure and of these, the latter is the more likely."

Thus does Dr. MacLean open wide a question that has attracted our attention for many years. Hospital interns are vitally necessary; in fact, the modern hospital cannot carry on without them. It also is true that the hospital management and the hospital staff owes definite things to these young men. There is plenty of opportunity for these young men to acquire the sort of training they need ere they engage in private practice, but it is necessary that some one sees to it that these opportunities are afforded them.

Principally due to the stimulus of the Council on Hospitals and Medical Education of the American Medical Association, many hospitals recently have planned a more or less regular teaching course for their interns; further, in many of these hospitals the interns are asked to present case reports and even complete programs at the regular staff meetings.

It is patent that our interns need something more than they have been getting, more personal

attention from staff members and hospital authorities, and more opportunity for the study of the cases in the institution.

## WE AWAIT MR. ARNOLD!

With considerable interest, we await the next move of Mr. Thurman Arnold, an attache of the United States Attorney General's office. Physicians generally are well acquainted with his former moves against their profession—the indictment of several A.M.A. officials together with those of the District of Columbia Medical Society and some individuals in the State of Texas. A hearing was had in the Federal District Court in the City of Washington in which Mr. Arnold met a decisive defeat; in fact, the court scathingly denounced the action and found in favor of the defendants.

Mr. Arnold's next move was to ask that the United States Supreme Court review this decision, commonly known as a "short cut" in court procedure. This the Court has refused to do, so now naught else remains but for Mr. Arnold to await a decision of the United States Court of Appeals.

As was the case when the primary indictment was returned, the press of the country is practically unanimous in the opinion that Mr. Arnold is barking up the wrong tree again. The *Indianapolis News* editorially comments to the effect that "the indictment shocked the country, for it was agreed that if it were justified, the government might disband all professional societies and labor unions." Further, the editorial states that a "decision against them would call for a constitutional amendment to liberate the professions and trades from political domination."

The *New York Times* under the heading, "A Victory for the A.M.A.," comments on the refusal of the Supreme Court to intervene at this time, comments upon the decision of the District Court, but goes on to aver that even this decision does not dispose of the economic question that gave rise to the indictment. However, it might be well to bear in mind that the *Times*, while still a great newspaper, is not the *Times* we knew in the days when Adolph Ochs was at its head—it is definitely unfriendly to the medical profession. We might quote from many other newspapers which had editorial comment favorable to our cause but the point in which we are most interested right now is just what is back of all the activity of Mr. Arnold. Certain it is that Mr. Arnold was not alone in the persistence which brought forth the original indictment; there must have been an impetus from elsewhere. Some one or some group within the Administration must have urged that action be taken in some manner. Not long ago we heard a high administration official state that he regarded this action as the most inane thing he ever had heard of. We would like to know just what and who is back of this thing—surely we have the right to know!



## Editorial Notes

Up to the present moment "Official Washington" has made no suggestion toward a change in date for the observation of December 25th as Christmas Day, hence we feel reasonably safe in wishing for all our folk on that day the peculiar pleasures that come to us all at that time. The birth of the Christ Child is celebrated throughout all civilized nations, which means throughout the entire world, and is an occasion toward which we all look with great anticipation. THE JOURNAL wishes for all the Merriest of Christmases and trusts that Holiday Week will be an occasion of much pleasure to you and yours.

"What's in a name?" asks Bob Hoffman of South Bend in a communication printed under Voice of Medicine in this issue. He naively suggests that we abandon for all time the use of the term "socialized medicine" and substitute therefor "political medicine." As he says, this will "put the burden of convincing the public back into the laps of state and federal agencies." We strongly urge that you turn to Dr. Hoffman's letter and give it earnest consideration.

After many years of service in the capacity of editor of *The Journal of the Michigan State Medical Society*, Dr. J. H. Dempster of Detroit has resigned, and Dr. Roy H. Holmes of Muskegon has been named acting editor. We shall miss Dr. Dempster's editorial comment as well as the pleasure of meeting him at the annual conferences of secretaries and editors. He is generally regarded as a conservative in his writing, yet he is fully alive to the needs of present day medicine. Veritably, Dr. Dempster is a "gentleman of the old school."

The "ham and eggs" plan of wealth distribution seems to have come a cropper in two states by way of the state-wide election route. In California and in Ohio plans of a somewhat similar nature were placed before the voters, in both instances resulting in a routing defeat at their hands. Thus again do we learn that it generally is safe to trust the American voter to use good judgment. In both instances the proposed measures appealed to the improvident rabble, the "thirty dollars every Thursday," as proposed in California having a strong appeal with this class of folk. It remains to see just what substitute plan some harebrained group will next propose.

Another of the old drugs is ready for the discard. Several decades ago, creosote was highly recommended in the treatment of respiratory diseases, and it once was advocated in the management of tuberculosis. The Council on Pharmacy and Chemistry of the American Medical Association has made a protracted study of the matter and in a report published in *The Journal of the American Medical Association* for November 11, 1939, it is stated that creosote lacks value in these cases. Formerly it was claimed that creosote increased sputum production, but the Council is unable to substantiate this claim.

The Department of Conservation announces that the conservation clubs throughout the state have released 43,195 pheasants during the present year, thus affording good hunting to the thousands of nimrods in Indiana. Several of our medical friends have reported unusually good shooting during the short period allotted to this particular sport. It also is reported that the little cotton-tails are more numerous throughout the state than in many years past. The quail hunters have found their quota on almost every visit to the hunting grounds, so it would seem that Indiana has again become a haven for happy hunters, due chiefly to the activities of our Department of Conservation.

"Let's have a week for this or that" seems just now to be a popular diversion. One who attempts to keep apace with all the weeks now set aside for special observations has a task before him. Many of these events are quite worth while, many are purely commercial, many plain silly. However, out on the West Coast, there was last year inaugurated a week that meets our fancy to a "T", that of "Pay Your Doctor Week." November 26 to December 2nd of this year was designated as the proper time to attend to this important duty, the Bank of California in Los Angeles again sponsoring the movement. The success of the project in 1938 led other communities to adopt the plan and this year finds many such activities, chiefly in the western states. It might be well for our Executive Committee, overworked as they are, to investigate the feasibility of trying the plan in Indiana. Most of our members will approve!

The Colorado State Board of Medical Examiners seems to have settled a question that long has bothered the licensing bodies of many of our states, referring to applicants for licensure who have been violators of medical laws prior to their date of application for a regular permit. At a meeting held October 3, 1939, the Colorado Board adopted this resolution, which definitely seems to

settle the matter in that state: "Any physician who attempts to practice medicine in the State of Colorado, either alone or through association with a licensed physician, without first obtaining a license from the State Board of Medical Examiners, shall be considered to have violated the provisions of Section 17, Chapter 109, Colorado Statutes Annotated 1935, and he shall not be considered eligible subsequently to appear as an applicant for medical licensure." We are thoroughly in accord with this ruling, being of the opinion that one who has been a violator of the medical laws of any state and who seeks regular licensure only after the law finally has caught up with him will not make a very desirable addition to the professional group of that state.

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Once more we approach the end of another year, a time when retrospection is in order and a time when our county medical societies will do well to consider the activities of the year just closing and make plans for 1940. The most important duty before these various groups at present is the selection of officers for the coming year. THE JOURNAL always has stressed the importance of selecting an active secretary, one who has ability plus the urge to go out and get things done; with this accomplished, the society would carry on in good fashion. We still maintain that this official is, or should be, the main spring, but with the multitudinous duties that are placed in the laps of our local medical groups, they need more than an active secretary—they need a full complement of active officers. Earnest, interested men are needed as members of our House of Delegates, and we have them. After sitting as a member of that body for more than three decades, after the close of the Fort Wayne convention we took occasion to remark that we need have no fear for the future of Indiana Medicine so long as the House of Delegates is made up of such an interested, informed group as sat in that legislative body. We trust that all delegates who attended the two sessions of the House at Fort Wayne will be returned next year and for years to come. Several county societies have adopted the plan of electing their delegates for period of two to four years—an excellent idea.

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Some misunderstanding has occurred in reference to honorary membership. When a member of a county medical society is made an honorary or retired member of his society, he *does not* automatically become an honorary member of the state association. Definite qualifications for honorary membership are set forth in the Constitution of the Indiana State Medical Association. Occasionally physicians who have been made honorary members of their county medical society take it for granted that they are honorary members of the state and

national medical organizations and when they find their names in small print in the A. M. A. directory, the State Association is blamed for making an error in reporting the names. All members should understand that honorary membership in the Indiana State Medical Association cannot be established unless the physician has attained the age of seventy-five years and has held membership in the Indiana State Medical Association for twenty years or more, and he must be elected to honorary membership by vote of the House of Delegates after his name has been proposed for such honorary membership by the county medical society of which he is a member. Unless these requirements are met, the physician cannot become an honorary member of the state association even though he may be made an honorary member of his local county medical society, and his status in his local county society does not relieve him of the obligation to pay his state association dues. If those dues are not paid, he is delinquent and must, of necessity, be so reported to the American Medical Association. If county medical society secretaries will keep these facts in mind, it will be helpful in avoiding unpleasant misunderstandings.

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That schools of physical education are innocently fostering the development of cults in the State of Indiana is a fact that the Medical Association should seriously consider. Throughout the State of Indiana and, in turn, in high schools all over the United States, athletic teams engage in weekly contests with neighboring teams. Each team has its coach who, according to the rules of the game, is not permitted to go on the field without permission. He therefore must delegate the job of taking care of injured players to a so-called "trainer." This trainer may be anything from a masseur to an osteopath. His position on the team immediately gives him an opportunity to establish himself in a community. It is common procedure among the members of the team to call the trainer "Doc" and very shortly this title gives him sufficient reason to establish himself as a naturopath, chiropractor or whatever cult he decides he belongs to.

The medical profession can blame no one but themselves for the origination of these irregulars in a community. Very few physicians in any community are willing to assume responsibility of the athletic teams or to care for the injured players with the various types of mechano-therapy which the trainer uses. Certainly there must be some virtue in his ability to rub out charley horses and to remove sprains, because coaches at the present time recognize this ability.

It is only one step from trainer to that of full-fledged cultist in which every ailment, whether it be cancer of the backbone, meningitis, or dislocation of the hip bone is treated. This is food for thought.





## President's Page



### SUPPORTING OUR SOCIETY

Another year has passed in the history of the Indiana State Medical Association during which time a great deal has been achieved. The accomplishments of the committees have been due to the fact that many doctors have given willingly of their time and energy to the existing problems. The co-operation among the physicians in the state has been of material aid in this respect.

The Committee on Public Policy and Legislation has done excellent work during the past year. May they continue to receive the assistance necessary to carry out their projects! The health program enacted by them has been of the best, and they have received recognition for their efforts. To them goes the credit for combating the menace of socialized medicine in the State of Indiana. We all know how inadequate the foreign plans have been and how unsatisfactory they are both to the patient and to the doctor. Surely, the physicians in the United States can arrange medical care for everyone without directions and orders from socialistic and political bureaus. The high ideals and aims of the medical profession must be upheld, and these would be destroyed if our services were to be controlled by the federal government.

With this in mind many county societies have made arrangements with their respective township trustees for the medical care of the indigent patient. It is the expectation that they will continue to work in harmony with the trustees of their townships. In this respect it is important that all doctors cooperate to the best of their ability and in this way protect their own interests as well as the health and welfare of all people.

The State Board of Health contributes to the subsistence of high standards in the medical profession, and it is desired that the good will of the physicians may be maintained. Disease prevention and health education of the public are vital measures in the field of medicine. The addition of the new Public Health Building at the Medical Center in Indianapolis will promote a better understanding and relationship among doctors throughout the state.

The postgraduate education program also needs the help of everyone. If properly planned and supported, this will be invaluable. It is hoped that many county societies will find it possible to devise a schedule of postgraduate conferences along with their meetings. This type of meeting gives the physician an opportunity to keep up with the advance in medical science and an occasion to discuss the new ideas and suggestions. Furthermore, it promotes a feeling of friendliness and fellowship which cannot be obtained in any other way.

With the coming of the new year many tasks will confront the medical profession, and every physician should regard them as his own personal difficulties. Give them thought and consideration and, in turn, offer your whole-hearted support to your local society. Thus will the state organization be strengthened and, in turn, will give impetus to the American Medical Association. There are many capable physicians in the State of Indiana and it is their duty to continue to lend their support and to give their services to these worthy projects.

*E. M. Van Buskirk.*

## THE NEW BIRTH CERTIFICATE

H. M. WRIGHT,  
State Bureau of Vital Statistics.

There has been a general revision in the forms for reporting births, deaths, and stillbirths. By the first of the year we hope to have these new forms generally distributed. An outline of a few of the principal changes on the certificate to be used for live births and the new blue forms, which are to be used for stillbirths, follows.

As in the past, the birth certificate will be issued in booklets of ten. Each book will also have, at the back of the book, two blue forms for recording stillbirths. This stillbirth certificate will take the place of both a birth and death certificate. If the child is stillborn at seven (7) months or more gestation, this form must be filled out by the physician and should immediately be turned over to the funeral director or person responsible for its disposal. It is requested that physicians carefully read these new forms and answer all the questions asked.

There has been no change in the pink form requested by the Welfare Board for children born with deformities. Two pink forms will also be included in each booklet of birth certificates. The white form is to be used in all cases of live births even though the child should live only a few moments.

Particular attention is called to the exact place of birth and the exact residence of the mother. Read these questions at the top of the certificate carefully. This is particularly important in cases where births occur in hospitals as the mother may live in an adjoining county or state.

On the reverse side of the new birth certificate there have been placed some questions which, while not a part of the legal certificate, are of particular interest to the Children's Bureau. It is requested that you also carefully answer these questions.

In filling out the cause of death upon the new death certificate, the physician has been asked to underline the cause to which death should be charged statistically. We hope the physician will insist upon filling out the medical portion of the death certificate rather than allow the funeral director to state the cause and sign his name.

A certificate of birth, death, and stillbirth should in all cases bear the physician's own signature. Great care should be used in filling out these records. Write plainly and inquire of the family as to the correct spelling of names.

Demand upon the Bureau of Vital Statistics for copies of records has been increased one hundred percent for use in social security matters, not mentioning increased requests for other purposes.

Physicians should keep in close touch with their city and county health commissioner. Keep an ample supply of forms on hand and file certificates promptly.

## VOICE OF MEDICINE

"WHAT'S IN A NAME?"

World events have demonstrated that wisely chosen propaganda constantly outmaneuvers diplomacy. Trustworthy friends of medicine constantly remind us that organized medicine blunders in opposing "socialized medicine." They avow that left wing movements, compensating with money or services the under-privileged due to poverty, have developed a momentum that can not be blocked at this time. They declare that our attempts to forestall this so-called "social progress" irritates the public more than it clarifies medicine's aims.

Every one familiar with the publicly announced plans of Thurman Arnold of the Department of Justice, or the rulings of the National Labor Relations Board, or the "surveys" of the U. S. Public Health Service knows that the above viewpoint warrants our serious consideration. Why not abandon the term "socialized medicine," and rechristen it "political medicine"? That term catapults the burden of convincing the public back into the laps of state and federal agencies. It implies to the public that physicians object to the present movements not for selfish reasons but because they fear that any possible good, vested in such movements, would be nullified by political patronage much after the fashion of parole systems, liquor control, and the like.

ROBERT HOFFMAN, M.D.

## UNDER THE CAPITOL DOME

### INDIANA STATE BOARD OF HEALTH TO MOVE TO NEW BUILDING

Some time during December the Indiana State Board of Health will move into its new building at the Indiana University Medical Center.

The biggest problem involved will be the transfer of laboratory equipment. Dr. Verne K. Harvey, health board secretary, said that an attempt will be made to accomplish the move without any lapse in service of the laboratories. He pointed out that specimens arrive every day and most of them are perishable. It is hoped to clear up one day's work in the old laboratories, now located in the Statehouse Annex, and begin the next day's work in the new. Most of the present equipment will be utilized in the new quarters, and nothing of any value will be left behind.

Second biggest job will be moving the statistical department. There will be several truck loads of this material, Dr. Harvey said. Records will be taken down in series, moved, and put back up in the same order. The department now receives approximately 55,000 birth and death records annually. Records of deaths date back to 1900 and birth records back to 1907. They are contained in bound volumes.



Moving of office and other equipment will be a simple matter and no difficulties are anticipated, Dr. Harvey said.

#### HUNTERS' ACCIDENTS TO BE INVESTIGATED

Hoosier physicians who happen to treat accident cases resulting from mishaps to hunters probably will be visited by game wardens who are conducting a survey of hunting accidents under the direction of Virgil M. Simmons, commissioner of the state Department of Conservation.

The study has been undertaken as a means of determining the major hazards of hunting. The data will be collected by the game wardens who have received special report forms.

Questions included in the forms cover such subjects as the nature and results of injuries sustained, type of firearms involved, style and color of various articles of clothing worn, whether the accident occurred in heavy cover or open fields, whether the accident involved more than one person, and a statement explaining how the accident occurred.

Results of the survey will be used in an educational campaign to reduce the possibilities of hunting accidents, Mr. Simmons said.

#### LIFE INSURANCE IN INDIANA

Medical and hospital bills of Hoosier citizens are backed by life insurance policies with a total value of \$2,803,917,111 it is revealed by a study of the annual report which has just been issued by George H. Newbauer, state insurance commissioner.

This does not take into consideration health and accident policies, the value of which is not shown by the report. According to John D. Cramer, deputy insurance commissioner, the bulk of the health and accident insurance in Indiana is held by city residents. Also, Mr. Cramer said, more urbanites have life insurance policies than do farmers.

In addition to the actual value of the life insurance which is available for the use of families of decedents in meeting their obligations, the combined insurance carries a tremendous borrowing power, so that families which face hospital and medical bills and are without necessary cash on hand have a ready source for borrowing needed funds. Of course, not all the insurance policies in force can be used as collateral for borrowing purposes, but a very large amount of it can be used for that purpose, it was pointed out.

The insurance commissioner's report showed that the various types of life insurance companies operating in this state paid a total of \$50,172,012.23 in death benefits to beneficiaries in Indiana during last year. The report did not show the amounts paid out in Indiana on sick and accident policies.

Hoosier life insurance policy holders paid out \$128,594,033.93 in premiums for this protection

during the twelve-month period, Mr. Newbauer's report showed.

Analysis of the types of companies in which Indiana citizens have bought life insurance policies, and the amounts of insurance in force in each showed: life companies of Indiana, \$256,770,103.61; fraternal associations of Indiana, \$12,212,386; life insurance companies of other states, \$2,371,698,-428.79; foreign life insurance companies, \$41,319,-806, and fraternal associations of other states, \$121,916,378.15.

#### LICENSES REVOKED

Licenses for Joseph E. Sharp of Indianapolis, Harry C. Judkins of Stockwell, and Scott R. Edwards of New York City have been revoked by the Indiana State Board of Medical Registration and Examination.

#### ABSTRACT

##### INTRACTABLE PAIN

"Intractable Pain" seems to be a subject for popular discussion in the medical press of late, several articles having appeared during the past few months. Of these, the discussion of R. N. Rutherford, Brookline, Massachusetts, appearing in the *New England Journal of Medicine* for September 14th, appeals to us as being very much worth one's time and consideration. The title of the paper is "The Use of Cobra Venom in the Relief of Intractable Pain." He reports the findings of the Pasteur Institute, stating that these were widely accepted on the continent, but not until 1933 did this treatment come into use in this country. The author commends this treatment for the relief of the intolerable pain accompanying many forms of malignancy, especially in those cases in which it is impracticable for the attending physician to make the frequent calls necessary for the administration of opiates. Macht, who seems to have done more work on the subject than anyone else in this country, suggests that the action of venom probably is due to a central analgesia. The action of venom is much slower than that of the opiates, daily injections being necessary for from two to four days before the full effect becomes apparent. After that period has been reached the dosage to be followed can be determined by the physician, similar to the adjustment as to the administration of digitalis.

"Cicardo suggests a probable increase in the pain threshold of the peripheral nerve mechanism." It is found that patients do much better under the use of venom, particularly in the matter of nutrition. No evidence of addiction or of becoming tolerant to the drug has as yet been noted.

The mouse unit has been adopted in the use of the cobra venom, which comes in 5 cc. ampules, containing 5 mouse units. 0.5 cc. seems to be the accepted dosage to start with, followed by daily injections of 1.0 cc. However, it is stated that continental doctors use a much larger dosage. As stated, relief usually comes on about the fourth day. The usual maintenance dosage, after relief from pain had been established, was 1.0 cc. every day, or every other day. Many patients learned to make their own injections.

Seventeen cases were treated in the reported series, all of which are summarized in the report. Of these cases 46 percent had absolute relief from pain and 88 percent were relieved of half their pain, or more.

The author is rather enthusiastic as to the future of cobra venom therapy.

# Membership Roster

## INDIANA STATE MEDICAL ASSOCIATION—1939

Following is a list of members of the Indiana State Medical Association including the names of all those who were members on November 23, 1939. Membership established after that date could not be included in this issue of THE JOURNAL.

Members who reside in one county and hold membership elsewhere are listed under the counties in which they reside. Names of members who have died during the year do not appear on this list.

The letter (H) following a name indicates that the physician is an honorary member of his local society and of the Indiana State Medical Association.

If any errors are found in this list, please report them to THE JOURNAL, 1021 Hume Mansur Building, Indianapolis. The cooperation of members is urgently requested.

### ADAMS COUNTY

#### Berne

Ernest Franz  
Myron Habegger  
D. D. Jones  
H. O. Jones  
Amos Reusser

#### Decatur

S. D. Beavers (H)  
R. E. Daniels  
Ben Duke  
Palmer Eichler  
F. L. Grandstaff  
G. J. Kohne  
J. M. Miller (H)  
C. C. Rayl  
W. E. Smith  
Harold F. Zwick

#### Geneva

C. P. Hinchman  
C. R. Price

### ALLEN COUNTY

#### Arcola

Arthur J. Roser

#### Fort Wayne

J. R. Adams  
Harry Aldrich  
Paul P. Bailey  
P. W. Bailey  
Jos. H. Baltes  
A. C. Bartholomew  
Karl Beierlein  
D. R. Benninghoff  
Raymond Berghoff  
J. E. Bickel  
H. V. Blosser  
Theo. R. Borders  
C. C. Bosselmann  
G. T. Bowers  
J. W. Bowers  
Robt. H. W. Brosius  
H. O. Bruggeman  
Doster Buckner  
E. L. Bulson  
H. B. Bundrant  
Elizabeth Burns  
Jessie C. Calvin  
D. F. Cameron  
W. W. Carey  
Ernest R. Carlo  
E. L. Cartwright  
M. B. Catlett  
A. R. Chambers  
H. R. Chester  
W. R. Clark  
John E. Conley  
Charles J. Cooney  
Beaumont S. Cornell  
C. R. Dancer  
I. W. Ditton  
M. H. Draper  
A. H. Duemling  
W. W. Duemling  
K. C. Eberly  
B. M. Edlavitch  
L. W. Elston  
Ralph W. Elston  
W. F. Engelbert  
C. H. English (H)  
A. N. Ferguson  
A. M. Fichman  
H. W. Foy  
H. W. Garton  
W. F. Gessler

N. H. Gladstone

H. E. Glock

Maurice E. Glock

Wayne R. Glock

L. K. Gould

Allen Hamilton

R. L. Hane

K. C. Hardesty

L. P. Harshman

Harry C. Harvey

Morse Harrod

A. P. Hattendorf

Jay F. Havice

John J. Hayes

Ruth M. Hoetzer

S. P. Hoffman

R. E. Holsinger

Don D. Johnston

J. W. Kannel

O. T. Kidder

J. H. Kilmer

E. A. King

E. H. Kruse

W. E. Kruse

Emil N. Kveton

G. G. Lenk

J. C. Lill

Maurice Lohman

A. H. Macbeth

Bertha Goba Macbeth

Edward G. McArdle

J. E. McArdie

T. E. McCabe

G. A. McDowell

L. S. McKeeman

Edgar Mendenhall

Samuel R. Mercer

Herman A. Meyer

S. C. Michaelis

Carl G. Miller

Mahlon F. Miller

O. J. Miller

Richard Miller

C. F. Moats

G. E. Moats

Arthur E. Moravec

L. W. Mueller

H. L. Murdock

Elmer W. Nahrwald

Carroll O'Rourke

J. H. Oyer

C. B. Parker

Kermit Perrin

Milton Popp

M. F. Porter

Nelson H. Prentiss

Henry Ranke

Lyman T. Rawles

H. A. Ray

B. W. Rhamy

W. B. Rice

Walter J. Rissing

Noah Allen Rockey

Juan Rodriguez

D. L. Rossiter

Maurice Rothberg

C. J. Rothschild

Harry W. Salon

N. L. Salon

C. A. Savage

A. R. Savage

D. W. Schafer

E. M. Schellhouse

M. F. Schick

Ed. H. Schlegel

H. V. Scott

David I. Schwartz

Herbert Senseny

Lawrence Shinabery

John Short

E. C. Singer

G. H. Somers

L. E. Somers

A. J. Sparks

Paul L. Stier

A. E. Stoler

John Swanson

R. W. Terrill

J. Wiley Thimlar

Walter Thornton

Philip S. Titus

E. M. Van Buskirk

Walter H. Vance

Metodi Velkoff

J. C. Wallace

S. G. Welty

Kathryn Whitten

Robt. W. Wilkins

Irving H. Willet

A. H. Williams

A. C. Worley

W. C. Wright

A. R. Wyatt (H)

Jas. L. Wyatt

Noah Zehr

E. S. Zweig

### Monroeville

S. E. Mentzer

H. E. Steinman

### New Haven

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C. W. Dahling

G. A. Smith

Berneice M. Williams

Edward Moser

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F. J. Beck (H)

J. W. Benham

Walter S. Fisher

P. C. Graham

Wm. Lennis Green

Robert B. Hart

H. H. Kamman

A. M. Kirkpatrick

Maurice McKain

H. J. Norton

Wm. J. Norton

Lyman Overshiner

Richard K. Schmitt

Wm. B. Sigmund

Lotta A. Suverkrup

Dorothy D. Teal

Everett W. Williams

E. U. Wood

Byron K. Zaring

### Elizabethtown

O. A. DeLong

R. P. Reynolds

### Hope

J. E. Dudding

Gordon H. Haggard

L. D. Reed

### Jonesville

B. J. Teaford

### BENTON COUNTY

#### Ambia

W. H. Taylor

#### Boswell

C. W. Atkinson

H. H. Hubbard

#### Earl Park

Joseph E. Horton

#### Fowler

W. H. Altier

D. E. Mavity

Verne L. Turley

#### Otterbein

L. A. Bolling

Geo. W. Marsh

J. E. McCabe

#### Oxford

H. G. Bloom

E. E. Parker

Virgil Scheurich

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#### Jamestown

Frank Riley

Alvin Schaaf

#### Lebanon

H. A. Beck

John D. Coons

O. C. Higgins

C. G. Kern

John R. Porter

E. A. Rainey

Wm. H. Spieth

Chas. O. Weddle

Wm. H. Williams

#### Thorntown

Clancy Bassett

#### Whitestown

R. J. Harvey

#### Zionsville

L. S. Bailey

O. E. Brendel

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Robert J. Miller

### CARROLL COUNTY

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#### Camden

Eva Kennedy

Charles Wise

#### Delphi

Edgar Bridwell

C. E. Carney

A. C. Clauser

C. C. Crampton

Hubert Gros

#### Flora

M. R. Adams

R. W. Brookie

E. H. Brubaker

Arthur Richter

#### Rockfield

H. Y. Mullin

### CASS COUNTY

#### Galveston

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### Logansport

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W. E. Barnett

J. C. Bradfield

B. W. Egan

E. L. Hedde

F. J. Herrmann

W. R. Hickman

L. J. Hillis

Marian Hochhalter

W. A. Holloway

W. W. Holmes

Thomas L. Keeffe

J. B. Maxwell (H)

C. H. McCully

M. A. McDowell

F. T. O'Leary

Earl Palmer

C. L. Rice

Joseph Rubsam

Foss Schenck

Harry Shultz

Milton E. Stewart

F. W. Terflinger

Charles L. Viney

C. L. Williams

Paul D. Williams

P. H. Wilson

### Royal Center

Russell Rollins

W. K. Newcomb

### Twelve Mile

Donald L. Miller

### Walton

E. P. Flanagan

E. A. Spohn

### Young America

D. E. Lybrook

### CLARK COUNTY

#### Charlestown

T. J. Marshall

H. L. Shanklin

#### Jeffersonville

Samuel L. Adair

J. H. Baldwin

Ralph Bruner

E. P. Buckley

R. G. Burman



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**Clay City**  
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**Cloverland**  
H. L. Muncie  
**Coalmont**  
H. H. Ward

**Poland**  
G. S. Silliman  
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W. H. Wisehart  
**Frankfort**  
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C. B. Compton  
T. A. Dykhuizen  
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C. A. Robison  
Hollace R. Royster  
Benson Ruddell  
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**Mulberry**  
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J. A. Kent

**Rossville**  
John S. Ketcham  
**Sedalia**  
Ivan E. Carlyle

**CRAWFORD COUNTY**  
**English**  
C. E. Duffin  
**Marengo**  
Jesse Benz

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T. A. Hays (H)  
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Mac Guyer Porter  
J. R. Rohrer

**Loogootee**  
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Emory B. Lett  
J. F. Michaels  
J. W. Strange

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Henry G. Coleman  
Jerome DeMotte

**Plainville**  
D. H. Swan

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J. S. Gilkison  
E. E. Long

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B. O. Burress  
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C. P. Fox  
Clair Ingalls  
H. B. Lindsay  
Jack McKittrick  
Wm. O. McKittrick  
S. L. McPherson (H)  
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E. Brayton Smoot  
H. C. Wadsworth

**DEARBORN-OHIO COUNTIES**

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J. M. Jackson  
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O. H. Stewart  
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E. R. Wallace  
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E. O. Hoffman

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**Lawrenceburg**  
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A. T. Fagaly  
Wm. J. Fagaly  
Edwin L. Libbert  
J. M. Pfeifer  
G. F. Smith  
F. A. Streck

**Rising Sun**  
G. M. Brother  
Geo. H. Hansell  
C. N. Manley

**DECATUR COUNTY**

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**Clarksburg**  
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**Greensburg**  
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F. C. Denny  
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C. C. Morrison  
J. T. Morrison  
Charles Overpeck  
E. T. Riley  
I. M. Sanders  
B. S. White (H)

**Letts**  
D. D. Dickson  
**Millhausen**  
J. W. Herr

**St. Paul**  
H. E. Harkcom  
**Westport**  
E. A. Porter  
Chas. Wood

**DEKALB COUNTY**

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Harold Nugen  
J. A. Sanders  
Bonnell M. Souder  
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Willard W. Swarts

**Butler**  
Clayton B. Hathaway  
Chas. Weirich

**Garrett**  
J. A. Clevenger (H)  
M. E. Klingler  
M. O. Klingler  
R. A. Nason  
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J. P. Showalter

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K. E. Puterbaugh  
**Daleville**  
J. R. Hurley  
O. Arnold Tucker

**Eaton**  
G. F. Ames (H)  
J. M. Atkinson (H)

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**Hartford City**  
Wendell W. Ayres  
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J. W. Morris  
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Bryce P. Weldy  
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Margaret F. Benjamin  
Henry E. Bibler  
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Chas. L. Botkin  
John H. Bowles  
Karl T. Brown

Rollin H. Bunch  
R. M. Butterfield  
Grace Cauffman  
L. E. Clark  
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F. E. Hill (H)  
Howard E. Hill  
Robert Hill  
A. T. Kemper  
F. E. Kirshman  
Jules La Duron  
C. A. Leatherman  
Homer Life  
R. M. McMichael  
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L. R. Mason  
W. J. Molloy  
L. G. Montgomery  
Paul D. Moore  
W. C. Moore  
Thos. R. Owens  
Wm. J. Quick  
A. C. Rettig  
M. G. Schulhof  
J. C. Silvers  
J. M. Silvers  
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W. A. Spurgeon (H)  
C. J. Stover  
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Elaine Vaskamp  
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L. C. Lukemeyer  
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E. F. Steinkamp  
Harvey Stork

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John P. Casper  
M. C. Heck  
St. John Lukemeyer  
Leo A. Salb

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**Elkhart**  
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R. A. Bowman  
Walter A. Compton  
L. M. Dedario  
Fred N. Dewey (H)  
L. A. Elliott  
C. F. Fleming  
J. C. Fleming  
Justus M. Fleming  
Geo. W. Grossnickle  
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M. F. Hunn  
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John W. Kistner  
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H. N. McKee  
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Irving Mishkin

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Vernon K. Pancost  
G. B. Patrick  
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M. Maywood Sears  
Walter Allen Stauffer  
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Lucretia R. Swank  
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K. W. Vetter  
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Cecil K. Bender  
H. P. Bowser  
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F. M. Freeman  
W. R. Kelly  
M. K. Kreider (H)  
Herbert K. Lemon  
Floyd S. Martin  
Malcolm E. Miller  
W. B. Page  
L. H. Simmons  
H. E. Vanderbogart  
G. A. Whippy  
Albert C. Yoder  
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Melvin Teters

**Millersburg**  
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R. A. Fleetwood  
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J. S. Slabaugh  
Lotus M. Slabaugh

**New Paris**  
E. D. Stuckman  
Charles Eisenbeiss

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Chas. L. Amick  
F. I. Eicher

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**Brookville**  
W. A. Foreman  
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R. E. Glaser  
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H. N. Smith

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Irvin E. Booher  
R. H. Elliott  
Stanley Gordin  
Stanton E. Gordin  
Albert F. Gregg  
W. A. Kemp  
J. S. Leffel  
H. C. Metcalf  
R. D. Morrow  
Francis Mountain  
H. W. Smelser

**Oldenburg**  
Geo. Obery

**FLOYD COUNTY**

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E. L. Sigmom

**Georgetown**  
H. K. Engleman

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James W. Baxter  
J. W. Baxter, Jr.  
S. M. Baxter  
C. E. Briscoe  
K. H. Brown  
D. F. Davis  
Parvin Davis  
Geo. H. Day  
W. F. Edwards  
W. H. Garner  
John P. Gentile  
John F. Habermel  
W. A. Hall  
R. W. Harris (H)  
A. P. Hauss  
Thomas Hewlett  
Chas. K. Kincaid  
Chas. P. Leuthart  
P. R. Pierson  
Gretchen I. Polhemus  
A. N. Robertson

S. T. Rogers  
P. H. Schoen  
H. B. Shacklett  
M. B. Strange  
F. T. Tyler  
Harry Voyles  
Wm. W. Weaver  
W. C. Winstanley  
M. F. Wolle

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J. Roy Burlington  
James C. Freed  
Albert C. Holley  
A. R. Kerr  
Lee J. Maris  
Margaret T. Owen

**Covington**  
J. W. Aldridge  
Earl E. Johnson  
Simeon Lambright (H)  
Alva Spinning  
L. R. Stephens

**Hillsboro**  
E. G. Bounell

**Kingman**  
A. L. Ratcliff  
B. J. Smith

**Kramer**  
Clara S. Eirley  
John H. Hewitt

**Pine Village**  
Geo. W. Dewey

**Veedersburg**  
C. B. McCord  
Jno. B. Owens

**Wallace**  
Hubert M. Rusk

**Williamsport**  
Mier S. Bizer  
G. S. Porter  
T. E. Ward

**FULTON COUNTY**

**Akron**  
C. L. Herrick  
Virgil Miller

**Athens**  
A. E. Stinson

**Fulton**  
F. C. Dielman

**Kewanee**  
L. E. Kelsey  
Kenneth Kranning

**Rochester**  
E. V. Herendeen  
M. O. King  
M. E. Leckrone  
H. W. Markley  
Mark M. Piper  
C. L. Richardson  
Dean K. Stinson

**GIBSON COUNTY**

**Fort Branch**  
B. C. Gwaltney

**Haubstadt**  
Austin F. Marchand  
Edwin V. Marchand  
Harold G. Petitjean

**Hazelton**  
H. M. Arthur

**Oakland City**  
C. M. Clark  
J. W. McGowan (H)  
E. R. Ropp  
A. B. Scales  
R. W. Wood

**Owensville**  
G. B. Beresford (H)  
J. R. Montgomery  
Darwin M. Short  
Karl S. Strickland

**Patoka**  
M. L. Arthur

**Princeton**  
H. H. Alexander  
O. T. Brazelon  
W. E. Childs  
Orville M. Graves  
M. P. Hollingsworth (H)  
Virgil McCarty  
R. S. McElroy  
Chas. A. Miller  
J. L. Morris  
A. H. Rhodes  
W. B. Wood  
A. L. Ziliak

**GRANT COUNTY****Fairmount**

Ralph H. Beams  
Z. T. Hawkins  
Glenn Henley  
L. D. Holliday

**Gas City**

L. H. Conley (H)  
Leon J. Garrison  
Fred Tavenner

**Jonesboro**

Russell Baskett

**Marion**

Charles F. Abell  
W. T. Bailey  
Asa W. Bloom  
W. W. Bourke  
Grace B. Boyer  
Robert F. Braunlin  
W. H. Braunlin  
Robert McD. Brown  
A. D. Burge  
V. V. Cameron  
B. C. Dale  
E. O. Daniels  
G. R. Daniels  
A. T. Davis  
M. S. Davis  
G. G. Eckhart  
L. H. Eshleman  
Pierre J. Fisher  
Max Ganz  
H. R. Goldthwaite  
A. D. Huff  
Frank J. Imburgia  
R. W. Lavengood  
M. J. Lewis  
Harold E. List  
J. F. Loomis (H)  
Eleanor McIlwain  
Robert McIlwain  
J. D. McKay  
H. A. Miller  
Nettie B. Powell  
F. J. Price  
Sidney Price  
L. L. Renbarger  
G. G. Richardson  
J. A. Richey  
W. Y. Seymour  
Samuel Weinberg  
**Swayzee**  
P. C. King  
Wm. S. Resoner  
**Upland**  
E. C. Taylor  
**Van Buren**  
John E. Derbyshire

**GREENE COUNTY****Bloomfield**

King L. Hull  
Mathias S. Mount  
H. B. Turner  
F. A. VanSandt

**Jasonville**

Carl M. Porter  
H. G. Rotman  
Sam Rotman

**Linton**

Frank A. Bailey  
P. C. Berns  
W. F. Craft  
C. C. Hamilton  
Geo. C. Porter  
B. B. Raney

**Lyons**

J. S. Simons (H)

**Newberry**

M. Luther Hamilton

**Worthington**

J. W. Clifford (H)  
George E. Moses

**HAMILTON COUNTY****Arcadia**

J. C. Ambrose  
Frank Rodenbeck

**Carmel**

Ross A. Cooper  
C. M. Donahue

**Cicero**

E. D. Havens  
Russell E. Havens  
C. H. Tomlinson

**Noblesville**

W. E. Catterson (H)  
R. F. Harris  
H. D. Hill  
Sam W. Hooke

Haldon C. Kraft  
O. B. Pettijohn (H)  
Ray W. Shanks  
J. D. Sturdevant

**Sheridan**

I. W. Davenport (H)  
J. W. Griffith  
A. C. Newby  
J. L. Reck  
E. M. Young

**Westfield**

Andrew F. Connoy

**HANCOCK COUNTY****Charlottesville**

W. R. Johnston

**Fortville**

Jas. B. Ellingwood  
Jesse E. Ferrell  
Samuel W. Hervey  
Hugh K. Navin  
Stewart Slocum

**Greenfield**

J. L. Allen  
Ralph N. Arnold  
C. H. Bruner  
Chas. Milo Gibbs  
Oscar Heller  
R. E. Kinneman  
L. B. Rariden  
James R. Woods

**New Palestine**

W. H. Larrabee  
E. E. Mace  
Thomas A. Pierson

**Wilkinson**

E. R. Gibbs  
Charles Titus

**HARRISON COUNTY****Corydon**

W. E. Amy  
F. M. Applegate  
Carl E. Dillman

**Crandell**

G. D. Baker

**Elizabeth**

Fred Bierly

**Lanesville**

E. W. Murphy

**Mauckport**

Alfred Mathys

**Ramsey**

L. F. Glenn

**HENDRICKS COUNTY****Brownsburg**

Lloyd E. Foltz  
A. N. Scudder

**Clayton**

Rilus E. Jones

**Coatesville**

M. E. Clark

**Danville**

L. W. Armstrong  
Mount E. Frantz  
Joseph W. Gibbs  
J. H. Grimes  
E. E. Hunt  
W. T. Lawson (H)

**North Salem**

E. Ray Royer  
O. H. Wiseheart  
Robert Wiseheart

**Pittsboro**

O. T. Scamahorn

**Plainfield**

Milo M. Aiken  
Jos. S. Smith  
J. C. Stafford  
C. B. Thomas

**HENRY COUNTY****Blountsville**

Paul Marsh

**Knightstown**

J. Leo Bartle  
E. B. Call  
Lewis E. Jolly  
O. H. Rees  
John Ivan Waller

**Lewisville**

Marion R. Scheetz

**Middletown**

R. D. Arford  
Farrol Drago  
Joseph H. Stamper

**Mt. Summit**

L. C. Marshall

**Newcastle**

R. L. Amos  
C. C. Bittler  
James G. Bledsoe  
E. S. Ferris  
B. L. Harrison  
W. C. Heilman  
G. E. Ierman  
W. U. Kennedy  
H. H. Koons  
J. H. McNeill  
Robert A. Smith  
Walter M. Stout  
C. E. Thorne  
J. A. Tully  
D. S. Wiggins  
George Wiggins  
W. W. Wright

**Shirley**

Ralph Wilson

**Spiceland**

W. S. Robertson

**HOWARD COUNTY****Greentown**

H. B. Shoup

**Kokomo**

C. J. Adams  
T. J. Bruegge  
Elton R. Clarke  
R. A. Craig  
F. S. Cuthbert  
G. N. Druley  
P. W. Ferry  
W. W. Gipe  
R. P. Good  
W. H. Harrison (H)  
W. H. Hutto

L. R. Knepple  
E. F. Kratzer  
B. D. Lung  
R. E. McIndoo

Wilbur J. Marshall  
Will J. Martin

J. A. Meiner  
D. A. Morrison  
W. R. Morrison

F. N. Murray  
F. M. Olmstead  
Durward W. Paris

John P. Pennell  
L. M. Reagan  
H. M. Rhorer  
R. J. Rhorer

R. P. Schuler  
R. F. Scott  
E. M. Shenk  
Jesse S. Spangler

**Russiaville**

R. M. Evans

**HUNTINGTON COUNTY****Andrews**

S. S. Frybarger

**Bippus**

A. R. Episcopo

**Huntington**

Harold S. Brubaker  
Stanley M. Casey  
A. C. Chenoweth  
Myers B. Deems  
M. G. Erehart  
J. B. Eviston  
Reuben F. Frost (H)  
Paul M. Gray  
B. H. B. Grayston (H)  
F. W. Grayston (H)  
Wallace S. Grayston  
James M. Hicks  
R. G. Johnston  
Robert Meiser  
F. B. Mitman  
Grover Nie  
G. G. Wimmer

**Markle**

A. M. Hasewinkle  
Halden C. Woods

**Roanoke**

O. P. Bigelow

**Warren**

Samuel Brady  
Claude S. Black  
L. W. Smith

**JACKSON COUNTY****Brownstown**

G. R. Gillespie  
D. J. Cummings

**Cortland**

J. M. Jenkins

**Crothersville**

Wm. K. Adair  
Frank B. Bard  
P. A. Kendall

**Freetown**

T. E. Conner

**Medora**

Neal Matlock

**Seymour**

W. Durbin Day  
L. W. Elsner  
C. E. Gillespie  
Harold P. Graessle  
G. H. Kamman  
Guy Martin  
Harold E. Miller  
Louis Osterman  
D. L. Perrin  
W. H. Shortridge  
E. D. Wright

**JASPER-NEWTON COUNTIES****Brook**

W. G. Pippenger

**Goodland**

Arthur L. Cramp  
J. F. Openshaw  
Ralph H. Ruhmkorff

**Kentland**

O. E. Glick  
W. C. Mathews  
G. H. VanKirk  
Roscoe Yeagerlehner

**Lake Village**

Raymond Merchant

**Morocco**

G. D. Larrison  
F. L. Morehouse  
L. H. Recher

**Remington**

Frank G. Sink

**Rensselaer**

H. E. English  
M. D. Gwin  
C. E. Johnson  
A. R. Kresler  
R. N. Washburn

**JAY COUNTY****Dunkirk**

E. C. Garber  
E. H. Hall  
N. L. Heller  
Don P. Murray

**Pennville**

H. J. Hiestand

**Portland**

A. C. Badders  
George Cring  
Forrest Keeling  
O. L. Meyer  
Mark M. Moran  
J. E. Nixon  
G. L. Perry  
S. M. Radivojevic  
W. D. Schwartz  
D. E. Spahr  
B. M. Taylor

**Redkey**

John Lansford

**Salamanca**

J. J. Kidder

**JEFFERSON COUNTY****Hanover**

Carl Henning

**Madison**

L. F. Beetem  
A. G. W. Childs  
E. C. Cook  
Chas. W. Denny  
Anna Goss  
N. A. Kremer  
George A. May  
W. A. Shuck  
E. C. Totten  
Oscar A. Turner  
S. A. Whitsitt

**North Madison**

C. C. Copeland (H)  
G. A. Estel  
Wait Griswald  
Guy W. Hamilton  
James W. Milligan (H)  
Francis Prenatt

**JENNINGS COUNTY****Deputy**

D. W. Robertson (H)

**North Vernon**

John H. Green  
W. L. Grossman  
L. E. Hoek  
D. W. Matthews  
D. L. McAuliffe  
W. H. Stemm (H)  
B. W. Thayer

**Scipio**

W. L. Wilson (H)

**JOHNSON COUNTY****Edinburg**

J. V. Baker  
Lon C. Bice  
J. Porter Myers  
Wm. E. Sutton

**Franklin**

Florence Blackford  
Harry Murphy  
Walter L. Portteus  
O. A. Province  
A. W. Records  
R. C. Wilson

**Greenwood**

J. A. Craig  
Kenneth I. Sheek  
C. E. Woodcock

**Trafalgar**

F. P. Albertson

**Whiteland**

J. H. Machleidt

**KNOX COUNTY****Bicknell**

Maurice S. Fox  
E. H. Tade  
Guy Wilson

**Decker**

Loren Hoover

**Edwardsport**

J. L. Reeve (H)

J. A. Scudder

**Freelandville**

M. M. McDowell

**Monroe City**

Milton Onstead

**Sandborn**

E. N. Johnson

J. W. Pahmier

**Vincennes**

R. M. Anderson  
P. B. Arbogast  
W. A. Bailey  
E. W. Beckes  
N. E. Beckes  
C. L. Boyd  
S. L. Carson  
R. B. Cochran  
M. L. Curner  
E. T. Edwards  
V. A. Funk  
L. L. Gilmore  
J. M. Goldman  
M. H. C. Johnson  
A. B. Knapp (H)  
H. D. McCormick  
R. C. Meyer  
R. G. Moore  
S. A. Prather  
J. P. Ramsay (H)  
D. H. Richards  
Helen M. Richards  
William Schulze  
K. L. Shaffer  
E. F. Small



Max D. Garber  
Geo. L. Kress  
S. C. Murphy  
O. H. Richer  
Geo. H. Schlemmer  
W. Bert Siders

**LAGRANGE COUNTY****Howe**

A. A. Wade  
F. C. Wade

**LaGrange**

H. G. Erwin  
H. F. Flannigan  
C. H. Schulz  
W. A. Van Nest

**Shipshewana**

E. B. Norris

**Topeka**

W. O. Hildebrand  
Frank M. Nichols

**Wolcottville**

J. M. Kercheval  
B. H. Pulskamp

**LAKE COUNTY****Calumet City (Ill.)**

M. R. Bascomb

**Crown Point**

Philip H. Becker  
J. P. Birdzell

D. E. Gray  
W. F. Houk

J. W. Iddings  
C. R. Pettibone

Anna G. Seyler  
W. H. Troutwine

William D. Weis

**East Chicago**

G. F. Bicknell  
Chas. S. Boyd

F. F. Boys  
Arthur D. Brody

Benj. B. Cohen  
A. V. Cole

E. R. Cotter  
Thos. F. Cotter

A. J. Dainko  
R. J. Dasse

Chas. J. Doneghy  
H. C. Ernst

J. C. Fleischer  
Wm. G. Grosso

R. C. Hamilton  
Wilbur Irish

D. R. Johns  
Lazar Josif

Adolph G. Kammer  
J. E. Komoroske

Eli Levin  
R. J. Liehr

Ora L. Marks  
D. F. McGuire

F. H. Mervis  
J. S. Niblick

Jas. J. O'Connor  
L. J. Ostrowski

S. J. Petronella  
Siegmond Reich

A. G. Schlieker  
Frank R. Sendra

Paul B. Smith  
J. A. Teegarden

Hugh A. Vore  
A. L. Yoder

J. M. Zivich

**Gary**

W. P. Alexander (II)  
C. O. Almquist

George D. Anthoulis  
Bellfield Atcheson

H. M. Baitinger  
W. M. Behn

C. H. Bender  
L. F. Bills

R. N. Bills  
Carl Boardman

C. C. Brink  
David B. Brown

M. J. Bullard  
J. B. Burcham

R. F. Carmody  
J. I. Chevigny

J. A. Craig  
S. H. Crossland

L. J. Danielecki  
C. A. DeLong

A. J. Dian  
J. C. Donchess

J. R. Doty  
J. S. Duncan

R. A. Elliott  
H. M. English

E. C. Gaebe  
G. W. Gannon

Richard Gannon  
E. E. Geisel

Antonio Giorgi  
Adolph Goldstone

Joseph Goldstone  
G. S. Greene

A. F. Gregoline  
B. F. Gumbiner

F. A. Gutierrez  
A. T. Harris

B. W. Harris  
R. M. Hedrick

M. Herschleder  
Harry L. Kahan

A. M. Kan  
F. J. Kendrick

H. F. Kobrak  
Geo. J. Kolettis

Julia G. Kuzmitz  
Arnold L. Lieberman

Georgianna Lutz  
M. C. Marcus

B. W. Marshall  
J. W. Mather

F. J. McMichael  
Frank W. Merritt

O. B. Nesbit  
H. C. Parker

J. O. Puryear  
P. J. Rosenbloom

Milton R. Rubin  
H. J. Ryan

L. K. Ryan  
Jacob Sagel

J. J. Sala  
E. L. Schaible

T. J. Senese  
Michael Shellhouse

E. D. Skeen  
Joseph Sponder

Harry R. Stimson  
C. M. Stoycoff

D. B. Templin  
G. L. Verplank

James P. Vye  
A. A. Watts

R. O. Wharton  
J. M. White

W. J. White  
O. C. Wicks

Robt. N. Wimmer  
C. W. Yarrington

P. S. Yocum  
G. M. Young

**Griffith**

F. A. Malmstone

**Hammond**

D. A. Betha  
W. M. Bigger

J. T. Bolin  
Fred Braginton

W. A. Buchanan  
J. F. Carlo

J. F. Clancy  
H. G. Cole

G. M. Cook  
C. H. Crews

Alice H. Davis  
H. W. Detrick

H. W. Eggers  
Ray Elledge

N. K. Forster  
F. H. Fox

M. B. Gevritz  
H. C. Groman

E. C. Hack  
A. H. Hansen

H. S. Hicks  
Andrew Hofmann

W. A. Hornaday  
W. H. Howard

Robert Husted  
E. S. Jones

R. W. Kretsch  
Hedwig S. Kuhn

Hugh A. Kuhn  
C. A. McVey

Chas. B. Matthews  
O. O. Melton

R. J. Modjeski  
Lindsay Morrison

Richard B. Nelson  
W. E. Nichols

Louis Nodinger  
T. W. Oberlin

R. O. Ostrowski  
Solomon V. Panares

A. W. Ratcliffe  
C. W. Rauschenbach

A. W. Rhind  
Perry Q. Row

J. Schlesinger  
E. M. Shanklin

Stanley Skrentny

S. L. Stern  
H. J. White

**Hobart**

L. E. Dupes  
L. M. Friedrich

R. W. Kraft  
R. M. May

A. G. Miller  
Wm. R. Storer

**Lowell**

Neal Davis

**Whiting**

O. F. Benz  
David W. Bopp

Harry Brandman  
Frank R. Doll

Clementine Frankowski  
Clifford M. Jones

L. T. Kudele  
A. J. Lauer

Jeremiah A. McCarthy  
J. A. Melyn

D. H. Ruder  
Harry Silvian

Theodore J. Smith  
George A. Thegze

L. J. Wisch

**LAPORTE COUNTY****Hanna**

H. A. Garner

**Lacrosse**

D. D. Oak

**LaPorte**

C. E. Burleson  
E. F. W. Crawford

C. B. Danruther  
R. B. Jones

J. N. Kelly  
Robert M. Kelsey

G. W. Kimball  
James Kistler

G. O. Larson  
E. E. Linn

W. B. Martin  
S. P. Morgan

A. C. Przednowek  
W. W. Ross

A. R. Simon  
R. F. Wilcox

**Michigan City**

T. D. Armstrong  
Daniel G. Bernoske

E. G. Blinks  
Harry A. Briggs

H. L. Brooks  
Norman R. Carlson

S. J. Donovan  
F. M. Fargher

M. D. Gardner  
R. A. Gardner

R. A. Gilmore  
A. T. Jones

John T. Kemp  
D. J. Kennington

J. J. Kerrigan (H)  
R. L. Kerrigan (H)

Aimee R. Killough  
George M. Krieger

F. V. Martin  
J. R. Phillips

Leonard F. Piazza  
J. D. Price

Nelle C. Reed  
N. C. Reglien

Lawrence M. Robrock  
L. E. Stephenson

Frank R. Warren  
P. H. Weeks

I. I. Weiss  
L. A. Wilson

**Rolling Prairie**

C. W. Brown

**Union Mills**

Louis Moosey

**Wanatah**

Chas. E. Mayfield

**Westville**

Warren Baker

**LAWRENCE COUNTY****Bedford**

L. H. Allen  
R. P. Austin

Norman R. Byers  
Joseph Dusard

Charles B. Emery  
Chas. H. Emery

John R. Pearson  
Frank D. Martin

A. E. Newland

H. C. Ragsdale  
C. E. Rariden (H)

M. O. Robertson  
Morrell E. Simpson

Robt. B. Smallwood  
R. E. Wynne

**Hellonville**

Jasper Cain

**Mitchell**

James D. Byrns

J. R. Hamilton

Walter C. Sherwood

**Oolitic**

Claude Dollens

**Williams**

J. T. McFarlin

**MADISON COUNTY****Alexandria**

J. L. Carpenter

I. J. Gibson

F. G. Keller

A. E. Otto (H)

George H. Overpeck

**Anderson**

C. L. Armington

John C. Armington

Robert Armington

M. A. Austin

Kenneth D. Ayres

C. H. Brauchla

Etta Charles (H)

A. W. Collins

E. M. Conrad

Rex Dixon

John C. Drake

A. W. Elsten

A. D. Erehart

I. B. Fattic (H)

H. W. Gante

F. C. Guthrie

Lee Hunt

Thomas M. Jones

B. A. King

Jos. W. King

O. A. Kopp

James L. Lamey

P. T. Lamey

Sam W. Litzenberger

J. A. Long

Paul L. Long

V. G. McDonald

O. E. McWilliams

Doris Meister

George B. Metcalf

W. M. Miley

George Moore

Paul Leon Nelson

L. L. Nesbit

D. S. Quickel

Guy E. Ross

Clarence V. Rozelle

W. L. Sharp

T. J. Stephenson

S. J. Stottlemeyer

Milo C. Wells

G. B. Wilder

F. M. Williams

C. L. Willson

F. B. Wishard

Cecil S. Wright

R. O. Zierer

**Elwood**

Perry Cotton

J. E. Cullipher

R. N. Filiatreau

H. W. Fitzpatrick

W. H. Hoppenwrath

W. M. Hoppenwrath

W. A. Laudeman

**Frankton**

J. C. Miller

Web Peck

Raymond Russell

**Lapel**

Aubrey W. Elsten

John I. Rinne

**Markleville**

D. N. Conner

**Pendleton**

Wm. D. Hart

E. J. Kalal

C. P. McLaughlin

F. M. Williams, Jr.

**Summitville**

Seth Irwin

L. F. Mobley

**MARION COUNTY****Acton**

N. C. Folkening

**Beech Grove**

R. W. Blackford  
Raymond Butler

Young D. Kim  
James C. Rhea

Geo. A. Tiley

**Bridgeport**

F. L. Hade

- Thomas A. Cortese  
C. E. Cottingham  
Thomas E. Courtney  
Haley Cox  
Harold M. Cox  
C. E. Cox  
K. L. Craft  
Helen L. Crawford  
Wm. H. Crays  
F. W. Cregor  
Clyde G. Culbertson  
Paul K. Cullen  
J. M. Cunningham  
John E. Dalton  
J. C. Daniel  
N. Cort Davidson  
John A. Davis  
C. W. Day  
John Day  
Eleanor H. Deal  
Michael F. Dean  
R. M. Dearmin  
Murray DeArmond  
Blair F. Deer  
C. Bowen DeMotte  
J. W. Denny  
Dwight DeWeese  
W. J. Dieter  
Albert M. Donato  
W. L. Dorman  
Frank T. Dowd  
William M. Dugan  
Thomas J. Dugan  
Harold Dunlap  
L. M. Dunning  
E. W. Dyar, Jr.  
Evanston B. Earp  
J. Rilus Eastman  
J. Wayne Ebert  
J. H. Eberwein  
H. L. Egbert  
C. L. Eisman  
Roy Egbert  
Bert Ellis  
John T. Emhardt  
John W. Emhardt  
J. E. Engeler  
L. A. Ensminger  
Bernhard Erdman  
Ralph V. Everly  
Jos. T. Farrell  
Chas. E. Ferguson (H)  
Frank B. Fisk  
J. O. Flora  
Harry L. Foreman  
Frank Forry  
D. W. Foster  
P. J. Fouts  
Robert D. Fry  
A. G. Funkhouser  
Elmer Funkhouser  
R. M. Funkhouser  
Paul C. Furgason  
S. A. Furniss  
William E. Gabe  
Euclid T. Gaddy  
George J. Garceau  
William Garner  
John D. Garrett  
J. A. Garrettson  
W. P. Garshwiler  
F. M. Gastineau  
W. D. Gatch  
Julius H. P. Gauss  
Roy A. Geider  
C. L. George  
Herman Gick  
F. E. Gifford  
J. A. Gillespie  
L. H. Gilman  
R. L. Glass  
J. L. Glendening  
H. W. Goss  
J. J. Gramling  
John W. Graves  
Oliver W. Greer  
John H. Greist  
R. E. Griffith  
G. W. Gustafson  
C. B. Gutelius  
Carl Habich  
Claude E. Hadden  
Murray N. Hadley  
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H. B. Shedd  
P. G. Skillern  
H. H. Slominski  
R. W. Spenner  
A. M. Sullivan  
C. C. Terry  
Ray H. Thomas  
Maurice J. Thornton  
P. C. Traver  
Henry E. Vitou  
W. G. Wegner  
Agatha Wilhelm  
J. L. Wilson

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C. D. Linton

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**Scottsburg**

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Marvin McClain  
Floyd Napper  
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**Flat Rock**

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Jewett Hord  
Herbert Inlow  
C. Fred Inlow  
W. D. Inlow  
Samuel Kennedy  
R. M. Nigh  
P. R. Tindall  
W. R. Tindall  
W. W. Tindall  
O. R. Wilson

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Eva J. Buxton (H)  
C. D. Ehrman  
J. C. Glackman

**St. Meinrad**

V. V. Schriever

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**Knox**

J. F. DeNaut  
J. R. Matthew

**North Judson**

P. O. Englerth  
Albert Fisher

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L. L. Eberhart  
S. S. Frazier  
W. H. Lane  
O. H. Swantusch  
W. F. Waller

**Fremont**

B. A. Blosser  
Ralph Hippensteel

**Helmer**

R. D. Denman

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Charles E. Whipps

**Dugger**

E. M. Deputy  
F. M. Dukes

**Fairbanks**

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**Hymera**

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**Merom**

John W. Woner

**Shelburn**

Vincent R. Lazo

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J. M. Billman (H)

C. F. Brigas  
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J. R. Crowder

Paul Higbee  
J. B. Maple  
G. D. Scott  
Ivin H. Scott  
W. N. Thompson (H)

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G. W. Copeland  
R. M. Copeland (H)  
Geo. E. Ellerbrook  
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R. R. Calvert  
O. U. Chenoweth  
Ira Cole  
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G. W. Herrold  
L. J. Holladay  
F. P. Hunter  
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Chas. B. Kern  
H. E. Klepinger  
Manson M. Lairy (H)  
H. J. Laws  
Guy P. Levering  
F. A. Loop  
F. A. Loop, Jr.  
O. R. Lynch  
H. G. Martin  
D. C. McClelland  
D. H. McKinney  
Adah McMahan  
John S. Morrison  
Samuel Pearlman  
F. W. Peyton  
F. L. Pyke  
Frank W. Ratcliff  
Wm. M. Reser (H)  
F. T. Romberger  
C. H. Rommel  
Bertha Rose  
C. L. Rowland  
E. B. Ruschli  
J. W. Shafer  
L. O. Sholty  
L. C. Smith  
Edward Stahl  
J. W. Strayer  
H. N. Swezey  
G. A. Thomas  
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E. L. Van Buskirk  
Earl VanReed  
W. W. Washburn  
R. B. Wetherill (H)  
C. M. Wray

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J. C. Burkle  
Frank Hall  
Louise J. Meikle  
S. J. Miller

**Romney**

O. L. McCay  
E. T. Mitchell

**West Point**

Ramon B. DuBois

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S. M. Cotton

**Kepton**

Albert E. Stouder

**Sharpshville**

W. F. Tranter

**Tipton**

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B. A. Burkhardt  
J. V. Carter  
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G. H. Warne

**Windfall**

B. V. Chance  
H. L. Ericson  
E. B. Moser

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A. E. Allenbaugh  
C. S. Baker  
Herman Baker  
J. S. Baker  
I. C. Barclay  
William E. Barnes  
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Stella Boyd  
S. L. Bryan  
C. R. Buikstra  
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Walter R. Cleveland  
Wm. M. Cockrum  
William L. Cole  
W. H. Coleman  
Herman Combs  
Pearl B. Combs  
John H. Combs  
Earl Conover  
I. E. Cottingham (H)  
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C. W. Cullhane  
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W. R. Davidson  
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Milton Miller  
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Marion Morcan  
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Wm. M. Wilhelmus  
Charles F. Willis  
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George Willison  
Ralph Wilson  
S. W. Wishart  
Wm. H. Wood  
W. P. Woods  
J. F. Wynn  
C. W. Yeck  
P. E. Yunker

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**New Goshen**

J. B. Loving

**Prairie Creek**

J. R. Wilson

**Riley**

C. M. DuPuy  
Virgil French  
Norman Silverman

**Seelyville**

C. S. Carmichael

**Terre Haute**

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Orris T. Aller  
W. C. Anderson  
W. D. Asbury

E. R. Baldrige  
W. O. Baldrige  
H. L. Be-nheimer  
Curtis Bland\*

Leon L. Blum  
M. J. Bohannon  
Henry W. Bopp  
E. B. Boots

Stephen C. Bradley  
Paul J. Bronson  
A. L. Cabell  
G. C. Carpenter

A. W. Cavins  
Chas. N. Combs  
Stuart R. Combs  
G. C. Congleton

J. O. Conklin  
J. J. Connelly  
W. G. Crawford  
O. G. Cruikshank

Claude A. Curry  
J. E. Dailey  
H. B. Decker  
L. J. Dugan\*

G. W. Dyer  
Eugene Eisenlohr  
D. H. Forsyth  
J. E. Freed

J. O. Garrigus  
D. A. Gerrish  
Ivan Gilbert  
John R. Gillum

H. T. Goodman  
A. B. Graham  
Edwin F. Gray\*

R. G. Harkness  
E. R. Haslem  
John R. Haslem  
J. H. Hauck

\* Member by transfer from another state.



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G. D. Beamer, Brooklyn, N. Y.....	Carroll
Max E. Blue, Burkesville, Ky.....	Kosciusko
W. J. Bogue, Seattle, Wash.....	Wabash
C. A. Bohnengel, New York, N. Y.....	St. Joseph
William V. Boyle, Phoenix, Ariz.....	Marion
J. H. Clark, Winter Park, Fla.....	Fayette-Franklin
A. J. Cramp, Ft. Lauderdale, Fla.....	Porter
L. L. Culp, Des Moines, Iowa.....	Allen
M. P. Cuthbert, Philadelphia, Pa.....	Howard
H. E. Dester, Deer Creek, Okla.....	Marion
Joseph Diamondstein, Calumet City, Ill.....	Lake
J. F. Dinnen, Cleveland, Ohio.....	Allen
J. W. Duckworth, Fort Sheridan, Ill.....	Marion
C. B. Fausset, New York, N. Y.....	Marion
M. H. Firestone, Worcester, Mass.....	Allen
John E. Graf, Chicago, Ill.....	Marion
J. R. Heaton, Hoopeston, Ill.....	Tippecanoe
L. Dell Henry, Ann Arbor, Mich.....	Lake
C. A. Hicks, Ann Arbor, Mich.....	Dubois
A. G. Hofferkamp, Sanator, S. D.....	Lake
Claude D. Holmes, Fort Knox, Ky.....	Marion
A. G. Hurley, Philadelphia.....	Delaware-Blackford
Peter Knoefel, Louisville, Ky.....	Vigo
Meyer Kobrin, Gilman, Ill.....	Lake
H. K. Langdon, Tucson, Ariz.....	Marion
J. A. Little, Evanston, Ill.....	Cass
William M. Loehr, Memphis, Tenn.....	Ripley
H. F. Machlan, Hines, Ill.....	Marion
E. L. Mock, Huntington, W. Va.....	Knox
A. W. Marcovich, Chicago, Ill.....	Lake
J. R. McLaughlin, St. Louis, Mo.....	Carroll
William McQueen, Sarasota, Fla.....	Marion
Marjorie Morrison, Detroit, Mich.....	Hendricks
A. H. Northrup, Clearwater, Fla.....	Huntington
C. J. Overman, Orlando, Fla.....	Grant
Minerva B. Pontius, Ann Arbor, Mich.....	Vanderburgh
G. T. Ransom, Fairfield, Ill.....	Posey
G. L. Richey, Mt. Clements, Mich.....	Dubois
E. S. Roberts, Lake City, Fla.....	Marion
F. T. Romberger, Jr., Baltimore, Md.....	Marion
Ralph Sappenfield, New York, N. Y.....	Fayette-Franklin
K. E. Selby, Oak Park, Ill.....	St. Joseph
Fred F. Shepard, College Corner, Ohio.....	Wayne-Union
H. G. Sichler, Detroit, Mich.....	Tippecanoe
S. G. Silverburg, Gulfport, Miss.....	Delaware-Blackford
E. M. Sirlin, Durham, N. C.....	St. Joseph
Fred C. Smith, Los Angeles, Cal.....	Marion
L. W. Smith, Elmhurst, Ill.....	Wabash
John S. Sprague, Aspinwall, Pa.....	St. Joseph
John Stanley, Nigh, Ky.....	Lake
H. G. Steinmetz, Baltimore, Md.....	Monroe
Howard A. Stellner, Chicago, Ill.....	Marion
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John R. Surbur, Philadelphia, Pa.....	Marion
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Margaret Tilden, E. Cleveland, Ohio.....	Lake
R. R. Tracht, Minneapolis, Minn.....	Lake
J. R. Tracy, San Gabriel, Cal.....	Madison
C. J. Trout, Philadelphia, Pa.....	Tippecanoe
H. T. Wagner, New York, N. Y.....	Marion
R. H. Williams, Baltimore, Md.....	Madison
J. T. Witherspoon, Minneapolis, Minn.....	Marion

1940 DUES ARE PAYABLE NOW!

## Deaths

**James K. Moss, M.D.**, retired physician of Indianapolis, died October twenty-fourth at his home in Ashboro after an extended illness. He was eighty-two years old. Dr. Moss graduated from the Medical College of Indiana, Indianapolis, in 1885.

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**Ernest McConnell Haggard, M.D.**, retired physician of Indianapolis, died November seventh, aged seventy-seven years. Following his graduation from the Physio-Medical College of Indiana, Indianapolis, in 1894, Dr. Haggard served as professor of surgery at the college, and did extensive postgraduate work in this country. He was a retired member of the Indianapolis (Marion County) Medical Society, and was formerly a member of the Indiana State Medical Association and the American Medical Association.

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**Andrew T. Custer, M. D.**, of Indianapolis, died November eleventh, aged sixty-eight years. Dr. Custer graduated from the Indiana University School of Medicine in 1908.

\* \* \*

**Albert Ogle, M.D.**, of Indianapolis, died October thirty-first, aged seventy-one. Dr. Ogle graduated from the Chicago Homeopathic Medical College in 1898. He was a member of the Indianapolis Medical Society, the Indiana State Medical Association and the American Medical Association.

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**Clarence D. Fulkerson, M.D.**, of French Lick, died November fifth in Veterans' Hospital in Hines, Illinois, where he had been a patient for several months. Dr. Fulkerson served as a captain in the United States Army from April, 1918, to December of that year. He graduated from the Medical College of Indiana, Indianapolis, in 1898, and was a member of the Orange County Medical Society, the Indiana State Medical Association and the American Medical Association.

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**George F. Martin, M.D.**, physician at Corydon for fifty-three years, died October twentieth, aged eighty years. Dr. Martin graduated from the Hospital College of Medicine, Louisville, Kentucky, in 1884, and was demonstrator of anatomy at that college for two years.

\* \* \*

**Perry Oliver Englerth, M.D.**, of North Judson, died October twenty-fifth, aged sixty-five years. Dr. Englerth graduated from the Kentucky School of Medicine, Louisville, in 1896, and was a member of the Starke County Medical Society, the Indiana State Medical Association and the American Medical Association.

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**Oliver P. Morton Ford, M.D.**, of Centerville, died October twenty-fifth in a Richmond hospital. Dr.

Ford had practiced in Aurora for a number of years before establishing his practice in Centerville, where he had been for the past nineteen years. He graduated from the Medical College of Ohio, Cincinnati, in 1864, and was a member of the Clay County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association. Dr. Ford specialized in ophthalmology and otolaryngology.

\* \* \*

**Charles Otto Schoier, M.D.**, of Jasper, died in the Daviess County Hospital at Washington, October twenty-fifth. Dr. Schoier was sixty-three years old. He had practiced in Jasper since 1922. He graduated from the University of Louisville School of Medicine in 1921 and specialized in urology. Dr. Schoier was a member of the Dubois County Medical Society, the Indiana State Medical Association, and was a Fellow of the American Medical Association.

\* \* \*

**Frank L. Harold, M.D.**, of Richmond, died October fourteenth, aged sixty-one years. Dr. Harold graduated from the Physio-Medical College of Indiana, Indianapolis, in 1904.

\* \* \*

**Charles E. Miller, M.D.**, retired physician of Muncie, died October seventeenth, aged sixty-nine years. Dr. Miller specialized in ophthalmology. After graduation from the Miami Medical College of Cincinnati, in 1898, Dr. Miller did postgraduate work in London and Vienna. He was a member of the Delaware-Blackford County Medical Society, of which he was a past president, the Indiana State Medical Association and the American Medical Association.

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**Clyde Jacob Munns, M.D.**, of Newburgh, died in an Evansville hospital, October twenty-fourth, aged fifty-four years. Dr. Munns was a graduate of the Kentucky School of Medicine, Louisville, in 1908, and was a member of the Warrick County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association. He had served as secretary of the Warrick County Medical Society from 1929 until his death.

\* \* \*

**John A. Ritter, M.D.**, of West Baden, died October nineteenth, aged ninety years. Dr. Ritter operated a drug store in West Baden for many years and practiced medicine there for thirty-five years. He was a graduate of the University of Louisville School of Medicine, in 1874.

\* \* \*

**William C. Mack, M.D.**, Negro physician of Indianapolis, died September twenty-ninth, after a long illness. Double funeral services were held for Dr. Mack and his wife who died within a few hours



after Dr. Mack's death. Dr. Mack graduated from the Howard University College of Medicine, Washington, D.C., in 1914.

\* \* \*

**Austin Funk, M.D.**, ophthalmologist and otolaryngologist of Jeffersonville, died October twenty-fourth as the result of a fractured skull suffered in an automobile accident. Dr. Funk was sixty-five years old. He graduated from the University of Louisville, School of Medicine, in 1900, and did postgraduate work in London. He was a member of the Clark County Medical Society, the Indiana State Medical Association and a Fellow of the American Medical Association, and had served as secretary and president of his county society. At the time of his death he was president of the Jefferson County (Kentucky) Eye, Ear, Nose and Throat Specialists' Society. He served as a captain

in the medical corps of the U.S. Army during the World War. The Clark County Medical Society has passed the following resolution in regard to Dr. Funk:

"Whereas, each and every physician of the Clark County Medical Society who came under the influence or acquaintance of Dr. Austin Funk realized the depth of his character, the kindness of his spirit and the charity of his life, and

"Whereas, the said members of the Clark County Medical Society knew more than any other individuals the high quality of Dr. Funk's early training, his service to his country during the World War, and the exceptional skill in his particular line of medicine and surgery,

"Be it Resolved, that a copy of this resolution be placed in the minutes of the society as a permanent record. . . ."

## News Notes and Personals

Miss Pauline Wood of Mitchell and Dr. Ted Grisell of Indianapolis were married in Indianapolis, August 18, 1939.

Dr. Willard C. Smullen of Indianapolis and Miss Ellen Louise Walsh of Indianapolis were married November fourth.

Dr. Howard H. Marks of Huntingburg and Miss Sarah Elizabeth Akin of Indianapolis were married in Indianapolis, November fourth.

Dr. D. J. Steele has moved from Roachdale to Greencastle where he will continue his practice.

Dr. Richard S. Bloomer of Rockville and Miss Betty Ann Glore of Greencastle were married in Indianapolis, October twenty-eighth.

Dr. David Silbert of Brookville has moved to Shelbyville where he is occupying the offices of the late Dr. W. C. McFadden.

Dr. Harry D. Miller who has been a practicing physician in Nebraska has moved to Shelbyville where he has purchased the equipment and records of the late Dr. B. G. Keeney.

Dr. and Mrs. Oliver Wilson have moved from Bringhurst to Shelbyville where Dr. Wilson will continue his practice.

Dr. Ernest Oppenheimer of Evansville has opened an office in New Harmony where he will conduct a general practice.

Dr. H. J. Halleck of Winamac has been named president of the Winamac Kiwanis club for 1940.

Dr. Hazel W. Hodges is located in Westville, Indiana, where she is assistant to Dr. Warren Baker.

Miss Doris Baxter of Bloomington and Dr. Samuel L. Scott of Orleans were married in Bloomington, October thirty-first.

Dr. Margaret L. Maisoll and Mr. Richard Newhouse, both of Morristown, Indiana, were married October 26, 1939.

O. R. Wilson, M.D., formerly of Bringhurst, Indiana, has opened an office for general practice of medicine at 405 Methodist Building, Shelbyville, Indiana.

J. H. Dempster, M.D., has resigned as editor of *The Journal of the Michigan State Medical Society*. Roy H. Holmes, M.D., of Muskegon, Michigan, has been appointed acting editor.

At the meeting of the Indiana Hospital Association in Indianapolis, October twentieth, a silver loving cup was awarded the Ball Memorial Hospital of Muncie for having sponsored the best Hospital Day observance in 1939 for any hospital in an Indiana city of more than 15,000 population. For cities with populations of less than 15,000, a loving cup was awarded to the Randolph County Hospital at Winchester.

Dr. Will A. Thompson of Liberty was elected president of the Union District Medical Association at the 143rd semi-annual meeting of that organization in Richmond, October twenty-sixth. Dr. G. A. Herman of Hamilton, Ohio, was named vice-president, and Dr. Paul W. Blossom of Richmond was re-elected secretary-treasurer.

The national convention of Nu Sigma Phi, women's medical sorority, was held in Indianapolis, October 20 and 21. Members of the Indiana chapter were hostesses for the convention which was held at the Hotel Severin. Dr. Olga Bonke-Booher of Indianapolis was elected president of the organization at its closing session.

According to newspaper announcement, the Children's Charity Hospital for Surgery Association, Inc., has been granted a charter by the state. The hospital is to be known as the Children's Tonsil and Adenoid Hospital, in Fort Wayne, and will be located at 112 East Rudisill Boulevard. Dr. Perry Bailey will serve as manager.

The Central Association of Obstetricians and Gynecologists will hold their annual meeting in Indianapolis in 1940. Dr. Carl P. Huber of Indianapolis was made a member of the executive committee. The 1939 meeting of the Association was held in November in Kansas City.

Dr. William McQueen, for many years associated with Sunnyside, the Marion County Tuberculosis Sanatorium at Indianapolis, has been made superintendent of the Sarasota Hospital at Sarasota, Florida.

The Methodist Hospital of Fort Wayne has purchased an eighteen-acre wooded tract at the southeast corner of State Boulevard and Randalia Drive in Fort Wayne as a site for a new hospital building. Plans for erection of the new building have not been completed.

The winter meeting of the American Association for the Advancement of Science will be held in Columbus, December 27 to January 2. The sessions of the Section on Medical Sciences are devoted mainly to the symposium on blood, heart, and circulation. Complete program and information may be obtained by addressing Dr. Jonathan Forman, 1005 Hartman Building, Columbus, Ohio.

The United States Chapter of the International College of Surgeons will hold its fourth annual assembly, February 11 to 14, 1940, in Venice, Florida. The convention will be under the direc-

tion of Dr. Fred H. Albee of New York City who is international president-elect of the organization, and Dr. F. M. Douglass of Toledo, Ohio, who is president of the United States chapter. All physicians and surgeons in good standing are invited to attend the assembly. There is no registration fee. For further information, address Dr. F. H. Albee, 57 West 57th Street, New York City.

Written examinations for the American Board of Ophthalmology will be held March 2, 1940, in various cities throughout the country. This will be the only written examination in 1940. All applications for the examination must be received before January 1, 1940. All applicants must pass satisfactory written examination before being admitted to oral examination. For application blanks write to Dr. John Green, 6830 Waterman Avenue, St. Louis, Mo.

More than 2500 professional public health workers from the United States, Canada, Cuba, Mexico, and five foreign countries gathered in Pittsburgh the week of October 16th for the sixty-eighth annual meeting of the American Public Health Association. New officers elected for 1939-40 are: president, Dr. Edward S. Godfrey, Albany, N. Y.; president-elect, Dr. W. S. Leathers, Nashville, Tennessee; treasurer, Louis I. Dublin, Ph.D., New York, N. Y.; executive secretary, Dr. Reginald M. Atwater, New York, N. Y.; and chairman of the executive board, Abel Wolman, Dr. Eng., Baltimore, Md. The sixty-ninth meeting will be held in Detroit, Michigan, in October, 1940.

Dr. Frank R. Spencer, Boulder, Colorado, was chosen president-elect of the American Academy of Ophthalmology and Otolaryngology at the annual session in Chicago, October 11. Dr. Frank E. Brawley, Chicago, will serve as president of the Academy during 1940. At the October meeting, the Academy decided to act as sponsor for a proposed Pan American congress of ophthalmology and otolaryngology. It is understood that invitations to each of the countries concerned will have the sanction of the Department of State and will be forwarded through diplomatic channels.

In addition to continuing certain appropriations for research, appropriation also was made for a new venture in graduate medical education. The Academy plans to establish, under its supervision, reading courses for young physicians serving as residents in hospitals who are preparing for specialization in diseases of the eye, ear, nose and throat. The council set aside \$1,500 for this purpose.

The Cleveland Ophthalmological Club is sponsoring a postgraduate study course in ophthalmology and otolaryngology to be given at the Cleve-



land Clinic, December 4 to 8. The fee for the combined course is \$25, for ophthalmology \$15 and for otolaryngology \$10. The announced program carries the names of men well known in these fields of medicine. Dr. A. D. Ruedemann of the Cleveland Clinic will accept registrations for these courses. Another six-day course is planned by the medical department of George Washington University, Washington, D. C., March 25 to 30, 1940. A fee of \$50 is asked for this course. There is also planned a special course in ocular surgery, pathology, and orthoptics for March 19 to 23, with a fee of \$100. Those interested should address Miss Louisa G. Wells, 927 Seventeenth Street, N.W., Washington, D.C.

#### WHITE HOUSE CONFERENCE ON CHILDREN

The fourth White House Conference on Children in a Democracy will be called into session from January 18 to 20, 1940.

This conference is not to be confused with the National Health Conference held last summer. The Child Health Conferences are not new ventures and have nothing to do with issues now paramount with the advocates of medical care. The first Child Health Conference was held in 1909 and was called by President Theodore Roosevelt; the second conference in 1919 was called by President Wilson; the third conference, held in 1929, was called by President Hoover, and President Roosevelt has approved the recommendation of the Planning Committee of the White House Conference on Children in a Democracy to hold the next conference from January 18 to 20, 1940.



Jay County has a new hospital at Portland. Recently opened, the hospital is modern in every respect. Maximum capacity of the hospital is forty-eight beds. There are two surgeries, an emergency operating room, obstetric ward, nursery, delivery room, laboratory, and x-ray equipment, all of the latest design. All beds can be used for fracture beds and each room is complete with furniture of mahogany finish. The building is air conditioned. The whole cost of the institution was \$150,000. The superintendent of the new hospital is Miss Anna Yaeger. The medical staff will be organized in December.

The October issue of *Diseases of the Chest* is a Mississippi Valley States Issue, with sections devoted to Illinois, Indiana, Iowa, and Wisconsin. The editorial committee for Indiana includes Dr. J. H. Stygall, Indianapolis, Dr. M. H. Draper, Fort Wayne, Dr. G. C. Johnson, Evansville, Dr. J. S. McBride, Indianapolis, and Dr. R. B. Sanderson, South Bend. A brief history of tuberculosis in Indiana is contributed by Mr. Murray A. Auerbach. Photographs and brief biographies of tuberculosis pioneers in Indiana include Dr. Alfred Henry, Dr. James O. Parramore, Dr. St. Clair Darden, and Dr. J. H. Stygall. Photographs and descriptions of Indiana sanatoria include the State Sanatorium at Rockville, Hillcrest hospital at Vincennes, Sunnyside Sanatorium at Indianapolis, Lake county sanatorium at Crown Point, Smith-Esteb hospital at Richmond, Kehrler hospital at Anderson, Healthwin hospital at South Bend, and Irene Byron Sanatorium at Fort Wayne.

#### Program

#### ANNUAL POSTGRADUATE CONFERENCE OF FOURTH DISTRICT MEDICAL SOCIETY

NORTH VERNON

Wednesday, December 6, 1939

#### Morning Session

##### 9:00-11:00 **Management of Labor**

Carl P. Huber, M.D., Resident Advisory and Research Director in Obstetrics and Gynecology, Indiana University School of Medicine

##### 11:00-12:00 **The Prevention and Treatment of Eclampsia**

(Doctor DeLee Motion Picture)

##### 12:00 Noon Luncheon

#### Afternoon Session

##### 1:00- 2:30 **Care of the Premature and Newborn Infant.**

a. **Medical Aspects**—Frances T. Brown, M.D., Director of Premature Center, Indianapolis City Hospital

b. **Nursing Aspects**—Miss Mary Ellen Wartzler, R.N., Pediatric Consultant Nurse, Indianapolis

c. **Public Health Aspects**—Howard B. Mettel, M.D., Chief of Bureau of Maternal and Child-Health, Indiana State Board of Health

##### 2:30-3:00 **The Treatment of Asphyxia Neonatorum** (DeLee Motion Picture)

##### 3:00-4:00 **Hemorrhage During Pregnancy and Labor** Carl P. Huber, M.D.

##### 4:00-5:00 **Safe Home Delivery** (Motion Picture Prepared by H. A. Durfee, M.D., University of Vermont)

*Note:* This program has been prepared and sponsored by the Committee on Postgraduate Education of the Fourth District Medical Society, and the Bureau of Maternal and Child-Health of the Indiana State Board of Health.

## INDIANA UNIVERSITY NEWS NOTES

Speaking before the recent meeting of the American College of Surgeons in Philadelphia, Dean W. D. Gatch, of the Indiana University Medical School, said that "too long a period of education for a surgeon may do him more harm than good." He pointed out that many surgeons now spend as much as 12 years of schooling, including internships, before actually entering practice. "Facing responsibility alone is an indispensable part of the student's training," Dr. Gatch said. "It is our fault if he is unable to do this after we have trained him for a reasonable time."

"Too often the surgical resident lives in a state of almost monastic isolation from the world of practical affairs. This leaves him tragically unfitted for leadership or responsibility, either in private or institutional practice."

Expressing the belief that more careful selection of candidates for the profession of surgery will make possible shorter periods of education, Dr. Gatch offered three years of training in addition to a year of internship as time enough for adequate training.

"If we cannot inspire him in three years to go on under his own power, we are failures as teachers," he said.

Approval has been given by the Indianapolis Board of Health to a contract whereby the Indiana University Medical Center of that city will give the City Hospital dispensary \$10,000 annually to improve both the service and the teaching facilities for the school of medicine.

The Medical Center provided for four full-time physicians at the City Hospital. Dr. J. Edward Tether, Jr., and Dr. A. M. Hasewinkle have been named and two other physicians will be appointed for the work later.

With a full-time staff in charge, it has been pointed out, the burden being carried by the dispensary can be reduced by keeping a closer check on patients, thereby making unnecessary return visitations to the dispensary. The staff also will be able to treat the patients more rapidly by systematizing appointments. The medical school will be compensated for its contribution by improving and increasing the teaching facilities in the dispensary for medical students.

Appointment of Dale E. York of Bloomington, Ind., and E. Harold Laws of Milan, Ind., seniors in the Indiana University School of Medicine, to internships in the Philadelphia General Hospital, have been announced.

York and Laws competed with 150 applicants for 35 internships and were two of six accepted from schools other than the University of Pennsylvania. Their competitors were seniors of several of the leading medical schools of the country.

Class officers for the Indiana University school of medicine have been announced as follows:

Seniors—E. Harold Laws, Milan, president; Champ McVaugh, Pendleton, vice-president; Roland E. Miller, Plymouth, secretary, and Andrew Offutt, Spiceland, treasurer.

Juniors—Morris C. Snyder, Amboy, president; Embree Rose, Linton, vice-president; Robert Maurer, Brazil, secretary, and John Ling, Hebron, treasurer.

Sophomores—Charles E. Green, Paragon, president; John Brink, Gary, vice-president; Welborn Britton, Indianapolis, secretary, and Robert Peacock, Dunkirk, treasurer.

Peoples Hospital of Peru, Ill., has this year become affiliated with the Indiana University Nurses' Training School and a small part of the training period of nurses at the hospital will be spent in this school.

Official announcement has been made of Indiana hospitals on the list approved by the American College of Surgeons for 1939 following a survey which was completed October 1. Seven Indianapolis hospitals and one in Beech Grove are on the list. They are City, James Whitcomb Riley, Robert W. Long, William H. Coleman, Methodist, St. Vincents and Veterans. Two are on the list as conducting approved cancer clinics, the City Hospital and the Indiana University Medical Center Cancer Clinic. St. Francis of Beech Grove and the Ft. Benjamin Harrison Hospitals are also on the approved list.

Other hospitals on the approved list for Indiana follow (those marked with asterisks have accepted the minimum requirements but for lack of time or other reasons acceptable to the college have not yet been able to carry them out in every particular):

St. John's,\* Anderson; Culver; Crawfordsville; Lake County Tuberculosis Sanatorium, Crown Point; St. Catherine's, East Chicago; Boehne, Tuberculosis Hospital, Protestant Deaconess, St. Mary's, United States Marine and Welborn-Walker, all of Evansville; Lutheran, Methodist and St. Joseph, Fort Wayne; Clinton County Hospital, Frankfort; Methodist and St. Mary's Mercy Hospital, Gary; St. Margaret, Hammond; Clark County Memorial Hospital, Jeffersonville; Lafayette Home Hospital and St. Elizabeth Hospital, Lafayette; Cass County Hospital, Logansport State Hospital and St. Joseph's,\* Logansport; Marion General Hospital and Veterans, Marion; Clinic Hospital and St. Anthony's, Michigan City; St. Joseph's, Mishawaka; Ball Memorial, Muncie; St. Edward's, New Albany; Henry County Hospital, New Castle; Wabash Railroad Employees' Hospital,\* Peru; Methodist, Princeton; Reid Memorial, Richmond; Epworth, Healthwin and St. Joseph's, South Bend; Mary Sherman Memorial, Sullivan, and St. Anthony's and Union, Terre Haute.



## SOCIETIES AND INSTITUTIONS

### INDIANA STATE MEDICAL ASSOCIATION THE EXECUTIVE COMMITTEE

October 9, 1939

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; E. M. Van Buskirk, M.D.; Karl Ruddell, M.D.; M. A. Austin, M.D.; A. F. Weyerbacher, M.D., and T. A. Hendricks, executive secretary.

Guests: R. B. Smallwood, M.D., and L. W. Vore, M.D.

#### Membership Report

Number of members Oct. 7, 1939	3112
(96 honorary members)	
Number of members Oct. 7, 1938	3059
Gain over last year	53
Number of members Dec. 31, 1938	3087

The statements of Receipts and Expenditures for August and September for the Association committees and THE JOURNAL were approved.

#### 1939 Annual Session at Fort Wayne

The committee discussed communications from Dr. Herman Baker and the resolution which is to be presented by Dr. H. J. Norton on behalf of the Bartholomew County Medical Society in regard to military preparedness of the profession.

Recommendation signed by a number of exhibitors that future meetings be held in Indianapolis brought to the attention of the committee.

The Executive Committee went on record that if the annual session is held at French Lick in the future, arrangements should be made so that the exhibits can be placed in the hotel lobby and the smoker will not be held in the basement.

#### Legislative, Legal and Social Security Matters

##### Local

Letter from Dr. William C. Woodward of the American Medical Association in regard to an appropriation for the Army Medical Library and Museum at Washington discussed by the committee. The secretary was instructed to write Representative Louis Ludlow of Indianapolis, who is a member of the Committee on Appropriations of the House of Representatives, in regard to this matter.

The bill introduced by Senator Lodge to provide health insurance for certain types of workers was brought to the attention of the committee.

##### Local

Report made to the committee that the cultists are getting up a war chest in an attempt to nominate ten men for the legislature, five of whom they hope to elect.

Further comments in regard to the so-called Indiana University hospital law that appeared in the papers and communications concerning this matter brought to the attention of the committee, among them a letter from Dr. J. E. Yarling of Peru, former president of the Miami County Medical Society, stating that the law was working very satisfactorily in Miami county.

Dr. Robert Smallwood appeared before the Executive Committee and stated his objections to the new law and the matter was discussed at some length by the committee.

#### State Board of Medical Registration and Examination

Various letters for and against a registration fee, among them a letter from Dr. J. T. Oliphant thanking the committee for presenting this matter to the various county medical societies, brought to the attention of the committee.

The case of an Illinois physician who is suing the State Board of Medical Registration and Examination because the Board refuses to issue him a license, brought to the attention of the committee. According to a letter received from the executive secretary of the State Board, the doctor cannot qualify for an Indiana license because his credentials do not meet the requirements of the Indiana Board.

Report made on the "Indiana Physiotherapy College" which is being established on North Meridian Street, Indianapolis, by a group of drugless healers, among them being several who were connected with the old Briggs diploma mill.

#### Organization Matters

Telegram sent on behalf of the Executive Committee to Dr. Walter McFadden's family approved by the committee.

Question concerning ethical relations of physicians and osteopaths and letter from the American Medical Association defining the position of the American Medical Association upon this subject brought to the attention of the committee.

Suggestion from Dr. Edwin L. Libbert of Lawrenceburg, Indiana, that the state association appoint a committee on physical therapy brought to the attention of the committee. On the motion of Dr. Van Buskirk, seconded by Dr. Austin, the committee went on record favoring the appointment of such a committee.

#### Group Hospitalization and Voluntary Health

##### Insurance

Dr. Nafe presented a statement to the committee which was approved as a supplemental report to the regular report of the Executive Committee which was to be made to the House of Delegates. This report called upon the House of Delegates to make a definite restatement of the policy of the state association concerning non-profit hospital insurance.

Michigan's plan for hospital insurance and medical care was brought to the attention of the committee. This plan was approved by the Michigan State Medical Society.

A report prepared by James H. Adamson of Terre Haute upon the opinion rendered by the Attorney General in regard to the hospital insurance bill, H. B. 241, that was passed at the last session of the legislature but was vetoed by Governor Townsend, was referred to Albert Stump who is to report back upon the same at the next meeting of the Executive Committee.

### Postgraduate

Form letter in regard to the course in optics which is to be given at Martinsville December 4 to 9 brought to the attention of the committee.

### Medical Economics

The attention of the committee was called to a letter received from the Delaware County Industrial Union Council, C.I.O., in regard to an occupational disease survey. This letter had been referred to and answered by the state association's Committee on Occupational Diseases.

Dr. L. W. Vore of Plymouth appeared before the committee and presented his suggestion that the state association organize a company to carry hospital and sickness insurance for its members. The matter was referred by the committee to the Council and it was suggested that Dr. Vore appear before that body at one of its meetings during the convention.

*Complaint against the Indiana University hospitals advertising.* A complaint was received from a physician with a clipping from an Indianapolis newspaper showing a classified ad for the Indiana University hospitals. Upon receipt of the physician's letter this matter was taken up with Mr. J. B. H. Martin, administrator of the hospitals, who stated that the advertisement would be discontinued in the future. The advertisement which appeared in the paper under the general heading "Hospitals" follows:

"INDIANA University Medical Center. J. B. H. Martin, administrator, 1040-1232 W. Michigan St. Ri. 7551."

### Indigent Sick

Letter received from Leo X. Smith suggesting that a round table discussion of the trustees-physicians' problems be held at the December meeting of the Township Trustees Association. Suggestion was made that a committee be appointed by the state association to meet with the Township Trustees Association, and the committee approved the appointment of such a committee.

Monthly reports of WPA cases brought to the attention of the committee.

### United States Pharmacopoeial Convention

Correspondence in regard to the U. S. Pharmacopoeial convention to be held in Washington, D. C., May 14, 1940, referred back to the committee by Dr. Nafe who had been assigned the duty of studying this matter. The secretary was instructed to write to the American Medical Association and ascertain whether or not delegates should be sent by the state association to that meeting, and if so, what type of men should be sent.

### State Conference on Social Service Work

The Executive Committee went on record approving the invitation that the Indiana State Medical Association supply the program for a two-day study course during the state conference on social service work to be held in Indianapolis November 1 and 2. This matter was to be referred to the Council.

### The Journal

The Woman's Auxiliary publicity committee is planning on better news articles for THE JOURNAL in 1940 and would like to use the photographs of the various auxiliary officers in each issue of THE JOURNAL. The motion of Dr. VanBuskirk, seconded by Dr. Austin, that THE JOURNAL assume the expense for these cuts, approximately \$3.00 per issue, was carried.

Printing contract for THE JOURNAL referred to the Council.

### Malpractice

Letter in regard to increase in rates of the Medical Protective Company referred to Albert Stump who is to make a special study of this and report back at the next meeting of the committee.

There being no further business the meeting was adjourned.

### WOMAN'S AUXILIARY

President—Mrs. W. E. Tinney, Indianapolis.

President-elect—Mrs. C. R. Bock, Muncie.

Corresponding Secretary—Mrs. Byron Rust, Indianapolis.

Treasurer—Mrs. C. V. Rozelle, Anderson.

The State Board of the Woman's Auxiliary to the Indiana State Medical Association held a luncheon meeting at the Columbia Club in Indianapolis, November second, with Mrs. W. E. Tinney, state president, presiding. Members of county auxiliary boards also attended. Preceding the luncheon, round-table discussions were held by state committees.

Dr. Norman Beatty, legislative committee chairman for the Indiana State Medical Association, discussed public relations and policies of the state organization. Dr. Beatty's address was followed by a business meeting.

Mrs. W. E. Tinney, president, stated that the objectives of the Woman's Auxiliary for 1939 and 1940, as approved by the Advisory Board of the State Association, are as follows: (1) Self-education, (2) Intelligent cooperation with local medical societies, (3) Education of the public, (4) Organization of new auxiliaries, (5) Promotion of *Hygeia*, (6) Follow suggestions for special work that might be of benefit to the medical association.

Mrs. V. K. Harvey, legislative chairman, presented the plan of her committee: Self-education by study groups dealing with pending legislation; every auxiliary meeting allotting time for medical current events; reading of A.M.A. and state medical journals. Education of the public through the offering of program material to P.-T.A. groups and lay clubs, and through speakers on medical economics supplied by the speakers' bureau.

Mrs. J. W. Baxter, Jr., public relations chairman, suggested that members be tolerant and fair, rational and honest, and tactful in carrying out programs of "extending the aims of the medical

(Continued on page 721)



*THE JOURNAL*  
*OF THE*  
*Indiana State Medical Association*

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA



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INDEX TO VOLUME 32

January to December, Inclusive, 1939

January	—Pages 1 to 50	July	—Pages 349 to 402
February	—Pages 51 to 100	August	—Pages 403 to 444
March	—Pages 101 to 164	September	—Pages 445 to 556
April	—Pages 165 to 232	October	—Pages 557 to 598
May	—Pages 233 to 298	November	—Pages 599 to 674
June	—Pages 299 to 348	December	—Pages 675 to 730

## THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

## Index to Volume 32, January-December, 1939

## ORIGINAL ARTICLES

Abdomen, Perforations in the (Habermel).....	25	Cyclopropane. A Resume of Personal Experience (Combs) .....	181
Abortion, Management of (Peyton).....	311	Cystitis in Women and Children (Kretschmer).....	11
Admission of Patients to the Indiana University Medical Center Under the Terms of House Bill 74 (Martin) .....	351	Deaf—But No Longer Dumb (Timberlake) .....	108
Aged and the Chronically Ill Patient, Nursing Care of the (Allen) .....	409	Deformity in Crippling Diseases of Childhood, Early Diagnosis and Prevention of (Shands) .....	471
Agranulocytosis Following Treatment of Bacterial Infections with Sulfapyridine (Shullenberger).....	415	Dementia Praecox, Present Status of Shock Therapy in the Treatment of (Reed) .....	451
Agranulocytosis, Anti-Streptococcal Serotherapy in (Emenhiser) .....	17	Diagnosis, Some Contributions of Roentgen Rays to (Kirklin) .....	677
Allergy in Ear, Nose and Throat Practice (Kuhn).....	241	Diphyllobothrium Latum, Report of a Native Case of Infection by the Fish Tapeworm (Cable-Headlee-Kmecza) .....	188
Allergy in Relation to Eczema (Duemling).....	237	District Health Units by the State Board of Health, Some Observations on the Plan for the Establishment of (Crowder) .....	193
Allergy, Nasal and Ocular (Savery).....	247	Dysentery, Amebiasis and Amebic (Moser) .....	301
Allergy, Pitfalls in the Diagnosis and Treatment of Clinical (Kraft) .....	233	Eczema, Allergy in Relation to (Duemling) .....	237
Allergic Diseases, Prophylactic Program for Treatment of (Bohner) .....	236	Electrophysical Phenomena, Clinical Electrochemical and Theoretical Considerations of (Green).....	474
Amebiasis and Amebic Dysentery (Moser) .....	301	Emotional Factors in Skin Diseases (Gastineau) .....	244
Anemia, Diagnosis and Treatment of Pernicious (Isaacs) .....	607	Emotional Problems in Childhood (Indiana Pediatric Society) .....	112
Anemias, Newer Concepts in the Interpretation of (Blum) .....	120	Emotions, General Practitioner Remembers that the Child Has (Smith) .....	21
Anesthesia, Complications Following General (Thomas) .....	695	Endocarditis Presenting Some Surgical Considerations, Case of Sub-Acute Bacterial (Phillips) .....	563
Anesthesia, Spinal (Holland-Ramsey) .....	314	Erythroblastosis Fetalis (Kraft) .....	317
Anesthesia, Spinal, Nupercaine Combinations Used in (Ratcliff) .....	74	Fatigue, Its Cause and Treatment (Johnson) .....	617
Anesthetic Organizations, Hospital (Ruth).....	7	Femur, Pin Treatment of Intracapsular Fracture of the (Hagie) .....	356
Anesthetic, Who Shall Choose the (Zaring).....	620	Fever of Unknown Origin (Welborn).....	122
Anti-Streptococcal Serotherapy in Agranulocytosis. (Emenhiser) .....	17	Fish Tapeworm, Diphyllobothrium Latum, Report of a Native Case of Infection by the (Cable-Headlee-Kmecza) .....	188
Army, Control of Typhoid Fever in the (Hilldrup).....	304	Fracture of the Femur, Pin Treatment of Intracapsular (Hagie) .....	356
Back, The Injured (Mumford-Reynolds).....	358	Fractures, Hip (Glock) .....	353
Belly, That Acute (Luckett).....	372	Fractures, Internal Fixation of (Campbell).....	679
Blood Banks and Blood Preservation (Bizer).....	261	Geriatrics (Maple) .....	406
Brain Disease, Chronic Rheumatic, as a Factor in the Causation of Mental Illness (Bruetsch-Bahr).....	445	Goiter, Diagnosis and Results of Treatment of Toxic (Gillette) .....	565
Bronchoscopy As An Aid in Treatment (Orton).....	683	Gonorrhea, The Treatment and Management of (Hewins) .....	69
Cancer of the Breast (Adair).....	165	Hearing Defects (Chappell) .....	101
Cancer, Modern Concepts in the Treatment of (Erickson) .....	167	Hearing Defects, Speech and (Gardner) .....	105
Cancer Clinic, Indianapolis City Hospital (Hofmann) .....	178	Hearing Defects, Speech and (McCasky) .....	103
Cancer of the Pelvic Colon, Surgical Treatment of (Hadley) .....	172	Heart Block, Intermittent Complete (Lyons) .....	622
Cancer of the Stomach (Padgett).....	176	Heart Disease (Clark) .....	403
Cardiology, Psychological Factors in (Horne).....	675	Hip Fractures (Glock) .....	353
Cesarean Operation in Relation to Maternal Mortality (Jackson) .....	570	House Bill 74, Admission of Patients to the Indiana University Medical Center Under the Terms of (Martin) .....	351
Cesarean Section. An Analysis of 127 Consecutive Cases (Elston-Elston) .....	572	Hygiene of Infancy and Childhood (Indiana Pediatric Society) .....	78
Child Has Emotions, General Practitioner Remembers That the (Smith) .....	21	Hypertension, Classification of (Page) .....	562
Childhood, Early Diagnosis and Prevention of Deformity in Crippling Diseases of (Shands) .....	471	Indiana University Medical Center Under the Terms of House Bill 74, Admission of Patients to the (Martin) .....	351
Childhood, Emotional Problems in (Indiana Pediatric Society) .....	112	Indiana and a Study of Neonatal Deaths in Indiana—The Study of Maternal and Fetal Mortality in (Committee on the Study of Maternal and Fetal Deaths) .....	254
Childhood, Tuberculosis in (Indiana Pediatric Society) .....	264	Indianapolis City Hospital Cancer Clinic (Hofmann).....	178
Children, Maladjustments in School (Frith).....	110	Infant, The Normal (Indiana Pediatric Society).....	15
Children, Non-Tuberculous Urinary Infections in (Mertz) .....	185	Infections in Children, Non-Tuberculous Urinary (Mertz) .....	185
Children's Services, Crippled (Greer) .....	349	Intestinal Infection, Newer Concepts of (Felsen).....	610
Cholecystitis, Diagnosis and Management of (McCure) .....	129	Insulin Shock Therapy in Ten Cases, Results of (Stellner-Watson) .....	459
Classification of Hypertension (Page) .....	562		
Communicable Diseases (Indiana Pediatric Society) .....	190		
Crippled Children's Services (Greer).....	349		



Jenner, Edward, A Great Experimenter (Wishard, Jr.) .....	196	Speech and Hearing Defects (McCaskey) .....	103
Laboratory Diagnosis of Syphilis (Dodds) .....	57	State Board of Health, Some Observations on the Plan for the Establishment of District Health Units by the (Crowder) .....	193
Live, The Will to (Frank) .....	419	Sulfanilamide, Clinical Experiences With (Hamer, Mertz, Wishard, Jr., Rauscher) .....	19
Major Tasks for the Medical Profession. President's Address. (Van Buskirk) .....	604	Sulfapyridine, Agranulocytosis Following Treatment of Bacterial Infections With (Shullenberger) .....	415
Maladjustments in School Children (Frith) .....	110	Syphilis Control, The Health Department in (Miller) .....	59
Malaria in Indiana (Jackson) .....	305	Syphilis, Laboratory Diagnosis of (Dodds) .....	57
Marijuana (Jackson) .....	305	Syphilis, The Serodiagnosis of (Mazzini) .....	65
Maternal and Fetal Mortality in Indiana and a Study of Neonatal Deaths in Indiana, The Study of (Committee on the Study of Maternal and Fetal Deaths) .....	254	Syphilis, The Treatment of Latent (Carter) .....	60
Maternal Mortality, the Cesarean Operation in Relation to (Jackson) .....	570	Tasks for the Medical Profession, Major. President's Address (Van Buskirk) .....	605
Medical Plan for All the People, A (Vohs) .....	125	Tuberculosis After Forty-five in Indiana (Jennings) .....	559
Meniere's Disease—Its Diagnosis and Treatment (Dandy) .....	117	Tuberculosis in Childhood (Indiana Pediatric Society) .....	264
Menstrual Irregularities, Diagnosis and Treatment of (Monroe) .....	412	Tuberculosis Outlook, The (Becker) .....	557
Mental Illness, Chronic Rheumatic Brain Disease as a Factor in the Causation of (Bruetsch-Bahr) .....	445	Typhoid Fever Twenty-five Years Ago and Now—Its Incidence and Treatment, A Comparison of (Ball) .....	299
Metrazol in Schizophrenia (Smith) .....	446	Typhoid Fever in the Army, Control of (Hildrup) .....	304
Neonatal Deaths in Indiana, a Study of, and The Study of Maternal and Fetal Mortality in Indiana (Committee on the Study of Maternal and Fetal Deaths) .....	254	Typing, Pneumococcus (Dodds) .....	57
Neurosyphilis (Williams) .....	62	Urinary Infections in Children, Non-Tuberculous (Mertz) .....	185
Nupercaine Combinations Used in Spinal Anesthesia (Ratcliff) .....	74	Undulant Fever with Sodium Cacodylate, Treatment of (Ragsdale) .....	314
Nursing Care of the Aged and the Chronically Ill Patient (Allen) .....	409	Venereal Disease Control, The Present Status of (Vonderlehr) .....	51
Nursing, What is (Hall) .....	375	Venereal Diseases, Public Health Aspects of (Kelly) .....	54
Observation and Experiment, Examination and Test (Inlow) .....	378		
Obstetrics in General Practice (Huber) .....	249		
Ophthalmic Treatment in General Practice (Sudranski) .....	363		
Oxygen in Pneumonia, The Role of Serum and (Barker) .....	1		
Pediatrics, Recent Advances in Medicine That Are of Special Significance in (Helmholz) .....	71		
Perforations in the Abdomen (Habermel) .....	25		
Peritonitis, Specific Primary (Ingalls) .....	688		
Pin Treatment of Intracapsular Fracture of the Femur (Hagie) .....	356		
Pneumonia, A Public Health Problem (McConnell) .....	4		
Pneumococcus Typing (Dodds) .....	5		
Pneumonia, The Role of Serum and Oxygen in (Barker) .....	1		
Pneumonia, Serum Treatment of (Hoffman) .....	686		
Prophylactic Program for Treatment of Allergic Diseases (Bohner) .....	236		
Psychological Factors in Cardiology (Horine) .....	675		
Quality of Medicine, The (Van Etten) .....	599		
Rabies in Indiana (Ratcliffe) .....	366		
Roentgen Rays in Diagnosis (Kirklin) .....	677		
Roentgen Therapy in Inflammatory Disease (Collins) .....	322		
Sarcoma, Retroperitoneal (Almquist-Lieberman) .....	417		
Scabies, Body Lice, and Ticks (Sandoz) .....	308		
Schizophrenia, Metrazol in (Smith) .....	456		
Serodiagnosis of Syphilis, The (Mazzini) .....	65		
Serum and Oxygen in Pneumonia, The Role of (Barker) .....	1		
Serum Treatment of Pneumonia (Hoffman) .....	686		
Shock Therapy in the Treatment of Dementia Praecox, Present Status of (Reed) .....	451		
Sinusitis Diagnosis and Non-Operative Treatment (Gessler) .....	463		
Sinusitis, Surgical Treatment of (McQuiston) .....	466		
Skin Diseases, Emotional Factors in (Gastineau) .....	244		
Speech and Hearing Defects (Gardner) .....	105		
		EDITORIALS	
		Abuses, Charity Hospital .....	202
		Allergy .....	267
		A.M.A. Fellowship .....	267
		A.M.A. Platform .....	698
		Baby Shows .....	384
		Blind Assistance Data .....	325
		Board Should Be Supported, The .....	578
		Cancer—Your Responsibility .....	201
		Charity Hospital Abuses .....	202
		Children, Crippled .....	383
		Climacteric, The Male .....	422
		Commencement—A Beginning .....	383
		Committee Reports .....	579
		Conservation—A Lost Art? .....	326
		Convention, The Fort Wayne .....	624
		Cosmetic Problems .....	268
		County Societies and the Year's Work, Our .....	29
		Crippled Children .....	383
		Delegate's Report, A .....	85
		Do You Want Your Own Doctor—Or the "State Doctor"? .....	136
		Doctor, Government and the .....	544
		Editorial Notes .....	
		31, 86, 136, 204, 269, 327, 385, 425, 545, 579, 627, 701 .....	701
		Education, Premedical .....	203
		Examinations, Postmortem .....	30
		Experiment in Medicine, An .....	83
		Flowers For the Living .....	326
		Food Au Naturel .....	424
		Fort Wayne Convention, The .....	624
		Gay Nineties, The .....	325
		Government and the Doctor .....	544
		Head Injuries .....	543
		Heart in Middle Life, The .....	421
		Hobbies .....	625
		Indiana University Hospital Law (H. B. 74) .....	422
		Industrial Medicine .....	625
		Injuries, Head .....	543
		Intern, The Hospital .....	599

Lamps Trimmed and Burning? .....	135
Legislation, Proposed .....	83
Legislature, The .....	201
Maladjustments .....	134
Male Climacteric, The .....	422
Marriage License Commission, That .....	29
Mayo, Charles Horace .....	384
Mayo, William James .....	544
Medicine's Bill of Rights .....	698
Meeting, Places of .....	626
Mental Disease .....	542
Plague," "The Great White .....	577
Pneumonia .....	28
Postgraduate Education .....	135
Postmortem Examinations .....	30
Premedical Education .....	203
President, Our .....	542
Reports, Committees .....	579
Saga, A Modern Medical .....	424
Surgeon General Reports, The .....	84
Syphilis Survey .....	83
Topic of the Month .....	30
Trachoma, Treatment of .....	699
Vaccination, Compulsory .....	268
War! .....	577
We Await Mr. Arnold .....	700

#### AUTHORS

Adair, Frank E., New York City (Cancer of the Breast) .....	165	Committee on the Study of Maternal and Fetal Deaths of the Indiana State Medical Association (The Study of Maternal and Fetal Mortality in Indiana and a Study of Neonatal Deaths in Indiana) .....	254
Allen, Dotaline E., Bloomington (Nursing Care of the Aged and the Chronically Ill Patient) .....	409	Crowder, J. H., Sullivan (Some Observations on the Plan for the Establishment of District Health Units by the State Board of Health) .....	193
Almquist, C. O., and Lieberman, Arnold, Gary (Ret-roperitoneal Sarcoma) .....	417	Dandy, Walter E., Baltimore (Meniere's Disease—Its Diagnosis and Treatment) .....	117
Bahr, Max A. and Bruetsch, Walter L., Indianapolis (Chronic Rheumatic Brain Disease as a Factor in the Causation of Mental Illness) .....	445	Delaware-Blackford County Medical Society (Mid-dletown Modernizes Medicine) (Special Article) ..	36
Ball, T. Z., Crawfordsville (A Comparison of Ty-phoid Fever Twenty-five Years Ago and Now—Its Incidence and Treatment) .....	299	Dillinger, George R., French Lick (1939 Session of the A.M.A.) (Special Article) .....	330
Barker, M. Herbert, Chicago (The Role of Serum and Oxygen in Pneumonia) .....	1	Dodds, Wemple, Crawfordsville (Pneumococcus Typ-ing) .....	5
Becker, P. H., Crown Point (The Tuberculosis Out-look) .....	557	Dodds, Wemple, Crawfordsville (Laboratory Diag-nosis of Syphilis) .....	57
Bizer, Mier, Lafayette (Blood Banks and Blood Preservation) .....	261	Duemling, W. W., Fort Wayne (Allergy in Rela-tion to Eczema) .....	237
Blum, Leon L., Terre Haute (Newer Concepts in the Interpretation of Anemias) .....	120	Elston, L. W. and Elston, R. W., Fort Wayne (Cesarean Section. An Analysis of 127 Consecu-tive Cases) .....	572
Bohner, C. B., Indianapolis (Prophylactic Program for Treatment of Allergic Diseases) .....	236	Emenhiser, John L., Hammond (Anti-Streptococcic Serotherapy in Agranulocytosis. Recovery of Two Cases) .....	17
Born, Mrs. Isaac, Indianapolis (The Women's Field Army of the American Society for the Control of Cancer) (Special Article) .....	203	Ericksen, Lester G., South Bend (Modern Concepts in the Treatment of Cancer) .....	167
Bruetsch, Walter L. and Bahr, Max A., Indianap-olis (Chronic Rheumatic Brain Disease as a Fac-tor in the Causation of Mental Illness) .....	445	Farm Security Administration (Proposed Program for Medical Care for Farm Security Administra-tion Clients in Indiana) (Special Article) .....	90
Cable, R. M., Headlee, Wm. H. and Kmecza, J. S., Lafayette (Report of a Native Case of Infection by the Fish Tapeworm, Diphylobothrium Latum) ..	188	Felsen, Joseph, New York City (Newer Concepts of Intestinal Infection) .....	610
Campbell, Willis C., Memphis, Tenn. (Internal Fixa-tion of Fractures) .....	679	Frank, John R., Valparaiso (The Will to Live) .....	419
Carter, F. R. N., South Bend (The Treatment of Latent Syphilis) .....	60	Frith, Gladys D., South Bend (Maladjustments in School Children) .....	110
Chappell, Ralph S., Indianapolis (Hearing Defects) ..	101	Gardner, Warren H., Bloomington (Speech and Hearing Defects) .....	105
Clark, C. J., Indianapolis (Heart Disease) .....	403	Gastineau, F. M., Indianapolis (Emotional Factors in Skin Diseases) .....	244
Collins, J. N., Indianapolis (Roentgen Therapy in Inflammatory Disease) .....	322	Gatch, W. D., Indianapolis (Admission of Adult Pa-tients to Indiana University Medical Center Under Terms of New Law—House Bill 74) (Special Article) .....	432
Combs, Charles N., Terre Haute (Cyclopropane. A Resume of Personal Experience) .....	181	Gessler, W. F., Fort Wayne (Sinusitis Diagnosis and Non-Operative Treatment) .....	463
		Gillette, Norris W., Toledo, Ohio (Diagnosis and Results of Treatment of Toxic Goiter) .....	565
		Glock, Wayne R., Fort Wayne (Hip Fractures) .....	353
		Greer, Oliver W., Indianapolis (Chipped Children's Services) .....	349
		Green, Wm. L., Columbus (Clinical Electrochemical and Theoretical Considerations of Electrophys-ical Phenomena) .....	474
		Habermel, John F., New Albany (Perforations in the Abdomen) .....	25
		Hadley, M. N., Indianapolis (Surgical Treatment of Cancer of the Pelvic Colon) .....	172
		Hagie, Franklin E., Richmond (Pin Treatment of Intracapsular Fracture of the Femur) .....	356
		Hall, James K., Richmond, Va. (What is Nurs-ing?) .....	375
		Hamer, Homer G., Mertz, H. O., Rauscher, R. C. and Wishard, W. N., Jr., Indianapolis (Clinical Experiences with Sulfanilamide) .....	19
		Hane, R. L., Fort Wayne (The Hall of Health) (Special Article) .....	638
		Headlee, Wm. H., Cable, R. M. and Kmecza, J. M., Lafayette (Report of a Native Case of Infection by the Fish Tapeworm, Diphylobothrium Latum) ..	188
		Helmholz, Henry F., Rochester, Minn. (Recent Ad-vances in Medicine That Are of Special Signifi-cance in Pediatrics) .....	71



Hewins, W. W., Evansville (The Treatment and Management of Gonorrhea) .....	69	McCaskey, C. H., Indianapolis (Speech and Hearing Defects) .....	103
Hilldrup, Don G., Indianapolis (Control of Typhoid Fever in the Army) .....	304	McClure, Roy D., Detroit, Mich. (Diagnosis and Management of Cholecystitis) .....	129
Hoffman, Robert, South Bend (Serum Treatment of Pneumonia) .....	686	McConnell, W. J., New York City (Pneumonia, A Public Health Problem) .....	4
Hofmann, J. William, Indianapolis (Indianapolis City Hospital Cancer Clinic) .....	178	McQuiston, Ralph J., Indianapolis (Surgical Treatment of Sinusitis) .....	466
Holland, Philip T. and Ramsey, Hugh S., Bloomington (Spinal Anesthesia) .....	314	Mertz, Henry O., Hamer, H. G., Rauscher, R. C., and Wishard, W. N., Jr., Indianapolis (Clinical Experiences with Sulfanilamide) .....	19
Horine, E. F., Louisville, Ky. (Psychological Factors in Heart Disease) .....	675	Mertz, Henry O., Indianapolis (Non-Tuberculous Urinary Infections in Children) .....	185
Huber, Carl P., Indianapolis (Obstetrics in General Practice) .....	249	Miller, Minor, Evansville (The Health Department in Syphilis Control) .....	59
Indiana Pediatric Society:		Monroe, R. F., Louisville, Ky. (Diagnosis and Treatment of Menstrual Irregularities) .....	412
(The Normal Infant) .....	15	Moser, Rollin H., Indianapolis (Amebiasis and Amebic Dysentery) .....	301
(Hygiene of Infancy and Childhood) .....	78	Mumford, E. B., and Reynolds, F. C., Indianapolis (The Injured Back) .....	358
(Emotional Problems in Childhood) .....	112		
(Communicable Diseases) .....	190	Orton, Henry B., Newark, N. J. (Bronchoscopy as an Aid in Treatment) .....	683
(Tuberculosis in Childhood) .....	264	Padgett, E. E., Indianapolis (Cancer of the Stomach) .....	176
Indiana State Board of Health, Bureau of Maternal and Child Health:		Page, Irvine H. and Kohlstaedt, K. G., Indianapolis (The Treatment of Pneumococcic Pneumonia with Sulfapyridine) (Special Article) .....	273
(Care of the Premature Infant in Rural Areas) .....	39	Page, Irvine H., Indianapolis (Classification of Hypertension) .....	562
(Diphtheria Immunization) .....	40	Peyton, Frank W., Lafayette (Management of Abortion) .....	311
(Other Immunization Programs Being Conducted in Carrying Out "The Indiana Plan") .....	92	Phillips, J. R., Michigan City (Case of Sub-Acute Bacterial Endocarditis Presenting Some Surgical Considerations) .....	563
(Birth and Death Certificates to be Revised by the Indiana State Board of Health) .....	146		
(Standards for Maternity Homes and Maternity Hospitals) .....	147	Ragsdale, Harrison C., Bedford (Treatment of Undulant Fever with Sodium Cacodylate) .....	314
(State-Wide Observance of Child Health Day, May Day—May 1, 1939) .....	213	Ramsey, Hugh S., and Holland, Philip T., Bloomington (Spinal Anesthesia) .....	314
Ingalls, Clair, Washington, Ind. (Specific Primary Peritonitis) .....	688	Ratcliff, Frank W., Lafayette (Nupercaine Combinations Used in Spinal Anesthesia) .....	74
Inlow, William D., Shelbyville (Observation and Experiment, Examination and Test) .....	378	Ratcliffe, A. W., Hammond (Rabies in Indiana) .....	366
Isaacs, Raphael, Ann Arbor, Mich. (Diagnosis and Treatment of Pernicious Anemia) .....	607	Rauscher, R. C., Hamer, H. G., Mertz, H. O., and Wishard, W. N., Jr., Indianapolis (Clinical Experiences with Sulfanilamide) .....	19
		Reed, Philip B., Indianapolis (Present Status of Shock Therapy in the Treatment of Dementia Praecox) .....	451
Jackson, G. B., Indianapolis (The Cesarean Operation in Relation to Maternal Mortality) .....	570	Reynolds, F. C. and Mumford, E. B., Indianapolis (The Injured Back) .....	358
Jackson, James W., Indianapolis (Marijuana) .....	24	Ruth, Henry S., Philadelphia, Pa. (Hospital Anesthetic Organizations) .....	7
Jackson, James W., Indianapolis (Malaria in Indiana) .....	305		
Jennings, Frank L., Indianapolis (Tuberculosis After Forty-five in Indiana) .....	559	Sandoz, Louis A., South Bend (Scabies, Body Lice, and Ticks) .....	308
Johnson, Paul S., Richmond (Fatigue, Its Cause and Treatment) .....	617	Savery, C. E., South Bend (Nasal and Ocular Allergy) .....	247
Kelly, Wendell C., Indianapolis (Public Health Aspects of Venereal Diseases) .....	54	Shands, Alfred R., Jr., Wilmington, Del. (Early Diagnosis and Prevention of Deformity in Crippling Diseases of Childhood) .....	471
Kirklin, B. R., Rochester, Minn. (Some Contributions of Roentgen Rays to Diagnosis) .....	677	Shanklin, E. M., Hammond (Indiana—Vacation Land) (Special Article) .....	274
Kmecza, J. M., Cable, R. M. and Headlee, Wm. H., Lafayette (Report of a Native Case of Infection by the Fish Tapeworm, Diphylobothrium Latum) .....	188	Shullenberger, Wendell A., Indianapolis (Agranulocytosis Following Treatment of Bacterial Infections with Sulfapyridine) .....	415
Kohlstaedt, K. G. and Page, Irvine H., Indianapolis (The Treatment of Pneumococcic Pneumonia with Sulfapyridine) (Special Article) .....	273	Smith, E. Rogers, Indianapolis (Metrazol in Schizophrenia) .....	456
Kraft, Bennett, Indianapolis (Pitfalls in the Diagnosis and Treatment of Clinical Allergy) .....	233	Smith, Leo X., Indianapolis (New Laws Pertaining to Indigents) (Special Article) .....	282
Kraft, H. C., Noblesville (Erythroblastosis Fetalis) .....	317	Smith, Stewart R., Indianapolis (General Practitioner Remembers that the Child Has Emotions) .....	21
Kretschmer, Herman L., Chicago (Cystitis in Women and Children) .....	11	Stellner, Howard A., and Waterson, H. L., Evansville (Results of Insulin Shock Therapy in Ten Cases) .....	459
Kuhn, Hugh A., Hammond (Allergy in Ear, Nose and Throat Practice) .....	241	Stevens, George C., Indianapolis (Mental Hygiene Clinics for Indiana) (Special Article) .....	141
Lieberman, Arnold, and Almquist, C. O., Gary (Retroperitoneal Sarcoma) .....	417		
Luckett, C. L., Terre Haute (That Acute Belly) .....	372		
Lyons, R. E., Jr., Bloomington (Intermittent Complete Heart Block) .....	622		
Martin, J. B. H., Indianapolis (Admission of Patients to the Indiana University Medical Center Under the Terms of House Bill 74) .....	351		
Maple, J. B., Sullivan (Geriatrics) .....	406		
Mazzini, L. Y., Indianapolis (The Serodiagnosis of Syphilis) .....	65		

Stevens, George C., Indianapolis (Mental Hygiene Program of the Department of Public Welfare) (Special Article) .....	548	District Meetings .....	280
Stump, Albert, Indianapolis ("Shall the Precinct Committeeman Select Your Doctor?") (Special Article) .....	439	Doctor, Shall the Precinct Committeeman Select Your (Stump) .....	439
Sudranski, Herbert F., Indianapolis (Ophthalmic Treatment in General Practice) .....	363	Executive Secretary for the County Medical Society, The Employment of a Full Time .....	40
Thomas, F. M., Indianapolis (Complications, following General Anesthesia) .....	695	Exhibit, State Fair—1939 .....	586
Timberlake, Josephine B., Washington, D.C. (Deaf—But No Longer Dumb) .....	108	Farm Security Administration Clients in Indiana, Proposed Program for Medical Care for .....	90
Van Buskirk, E. M., Fort Wayne (Major Tasks for the Medical Profession. President's Address) .....	604	Fear of Socialized Medicine .....	431
Van Etten, N. B., New York City (The Quality of Medicine) .....	599	Grant County Medical Society Conducts First of Proposed Regional Postgraduate Conferences .....	389
Vohs, Carl F., St. Louis, Mo. (A Medical Plan for All the People) .....	125	Hall of Health, The (Hane) .....	638
Vonderlehr, R. A., Washington, D.C. (The Present Status of Venereal Disease Control) .....	51	House of Delegates and Council at Fort Wayne Session, High-Light Actions of the .....	635
Waterson, Herman L., and Stellner, Howard A., Evansville (Results of Insulin Shock Therapy in Ten Cases) .....	459	Immunization Program, An .....	91
Welborn, M. B., Evansville (Fever of Unknown Origin) .....	122	Immunization Programs Being Conducted in Carrying Out "The Indiana Plan," Other (Bureau of Maternal and Child Health) .....	92
Williams, C. L., Evansville (Neurosyphilis) .....	62	Indigents, New Laws Pertaining to (Smith) .....	282
Wishard, W. N., Jr., Hamer, H. G., Mertz, H. O., and Rauscher, R. C., Indianapolis (Clinical Experiences with Sulfanilamide) .....	19	Indiana—Vacation Land (Shanklin) .....	274
Wishard, W. N., Jr., Indianapolis (Edward Jenner—A Great Experimenter) .....	196	Indiana Academy of Ophthalmology and Otolaryngology .....	591
Zaring, E. T., Terre Haute (Who Shall Choose the Anesthetic?) .....	620	Indiana Health Officers Conference Program .....	584
		Indiana State Medical Association:	
		Brevities in the Annals of the Convention City (Rawles) .....	480
		Delegates to the Indiana State Medical Assn. .....	536
		Fort Wayne Convention:	
		Announcements .....	491
		Convention Notes .....	630
		Exhibitors .....	538
		Hall of Health .....	492
		Hobbies Exhibit .....	146
		Hotels .....	344
		Official Call to the House of Delegates .....	494
		Official Program for Annual Session .....	486
		Radio Broadcasts .....	583
		Reference Committees .....	583
		Results in Sports Events .....	634
		Scientific Exhibits .....	582
		Session, The Fort Wayne .....	582
		Skeet and Trap Shoot .....	492
		Women's Entertainment Program .....	491
		Women Physicians .....	213
		Membership Roster, 1939 .....	706
		Preliminary Program 90th Annual Session of the Indiana State Medical Association .....	430
		Officers' Photographs .....	476
		Reports of Officers and Committees .....	495
		Indiana University Medical Center Under Terms of New Law (House Bill 74), Admission of Adult Patients to (Gatch) .....	432
		Indiana University Medical Center, Two-Weeks Postgraduate Courses at .....	431
		Infant, Care of the Premature, in Rural Areas of Indiana (Bureau of Maternal and Child Health) .....	39
		JOURNAL Surveys Itself, THE .....	588
		Lake County's "Production Schedule" .....	217
		Laws Pertaining to Indigents, New (Smith) .....	282
		Legislature, Fine Health Program Enacted by (Committee on Public Policy and Legislation) .....	209
		Marion Postgraduate Conference Huge Success .....	433
		May Day—May 1, 1939, State-Wide Observance of Child Health Day (Bureau of Maternal and Child Health) .....	213
		Maternity Homes and Maternity Hospitals, Standards for (Bureau of Maternal and Child Health) .....	147
		Maternity Homes and Maternity Hospitals, Standards for Completed .....	390
		Middletown Modernizes Medicine (Delaware-Blackford County Medical Society) .....	36

## SPECIAL ARTICLES

Admission of Adult Patients to Indiana University Medical Center Under Terms of New Law (House Bill 74) (Gatch) .....	432
A.M.A., 1939 Session of the (Dillinger) .....	330
A.M.A., Notes From the St. Louis Session of the .....	332
A.M.A. Survey, The	
Several Indiana Counties Complete the A.M.A. Survey .....	142
Allen .....	142
Marion .....	143
Jackson .....	144
Putnam .....	145
Randolph .....	145
More Counties Report on the A.M.A. Survey .....	214
St. Joseph .....	214
Vigo .....	215
Noble .....	215
Madison .....	216
Knox County Reports on the A.M.A. Survey .....	338
American Society for the Control of Cancer, The Women's Field Army of the (Born) .....	203
Birth and Death Certificates to Be Revised by the Indiana State Board of Health (Bureau of Maternal and Child Health) .....	146
Birth Certificate, New .....	704
Child Health Day, May Day—May 1, 1939, State-Wide Observance of (Bureau of Maternal and Child Health) .....	213
Conservation of Vision .....	336
Council at Fort Wayne Session, High-Light Actions of the House of Delegates and .....	635
County Medical Society, The Employment of a Full Time Executive Secretary for the .....	40
Department of Public Welfare, Mental Hygiene Program of the (Stevens) .....	548
Diphtheria Immunization (Bureau of Maternal and Child Health) .....	213



Obstetrics, Report of Southwestern Indiana Postgraduate Conference on .....	550
Obstetrics, Vanderburgh County Society Sponsors Postgraduate Conference on .....	389
Pediatrics, Postgraduate Conference on .....	550
Pike County Medical Society Carries Out "The Indiana Plan" .....	220
Pneumonia Committee Makes Recommendation.....	283
Pneumonia (Pneumococcic), Treatment with Sulfapyridine (Kohlstaedt-Page) .....	273
Postgraduate Conference on Pediatrics .....	550
Postgraduate Conference on Obstetrics, Vanderburgh County Society Sponsors .....	389
Postgraduate Conference on Obstetrics, Report of Southwestern Indiana .....	550
Postgraduate Courses at Indiana University Medical Center .....	431
President's Page	
35, 89, 140, 207, 279, 335, 388, 429, 547, 581, 703	

Southwestern Indiana Postgraduate Conference on Obstetrics .....	550
Standards for Maternity Homes and Maternity Hospitals (Bureau of Maternal and Child Health)...	147
Standards for Maternity Homes and Maternity Hospitals Completed .....	390
State Fair Exhibit—1939 .....	586
Sulfapyridine, The Treatment of Pneumococcic Pneumonia with (Kohlstaedt-Page) .....	273
Summer Round-Up Campaign, Indiana Completes Successful .....	591
Syphilis Control Committee .....	284

## Under the Capitol Dome:

Accident Report, Traffic .....	434
Accidents on Dual Lane Highways, Lower Percentage of .....	147
Annual Re-registration, Proposal for .....	147
Cost of Caring for Indiana's Mental Defectives...	94
Dates Announced (June 20-22) State Board Examination .....	148
Deaths from Fire .....	641
Eichel, Evansville, Reinstatement of License of Dr. Sidney J. ....	94
Examinations, Announcement of Time and Place of State Board .....	219
Examinations, Results to be Announced September 1st .....	433
Exhibit at the State Fair, The Health .....	592
Fire, Deaths from .....	641
Garnishee Law .....	641
Government Spending .....	392
Group Hospital Work Launched .....	433
Hay Fever Sufferers May Anticipate Bad Season .....	551
Illinois Physicians Take Examination to Practice in Indiana, Seven .....	147
Incidence of Illness Low in Second Quarter.....	434
Incidence of Illness Low in Third Quarter .....	592
Inquire Before You Travel .....	392
Laws, New Traffic Safety .....	219
Laws Not Effective Until 1940, Two New Health Licensed to Practice, Physicians .....	339
Maps, 1939 Highway .....	551
Marijuana .....	148
Marijuana Eradication in Indiana .....	640
Mental Defectives, Cost of Caring for Indiana's "One Out of Ten" .....	592
Physicians Licensed to Practice .....	94
Pneumonia Serum, Distribution of .....	551
Preservatives in Meat Products, Bureau of Food and Drugs Finds Illegal .....	285
Rehabilitation Work .....	219
Rabies, Spread of .....	339
Rabies Examinations, Results of .....	434
Re-registration, Proposal for Annual .....	147
Rocky Mountain Spotted Fever .....	392
Scales, Accuracy of Public .....	339

State Board of Medical Registration Elections...	94
State Board of Health Building, Progress of Work on .....	285
State Fair, The Health Exhibit at the .....	592
Supreme Court Decision Relative to Persons Practicing Medicine Without License .....	339
Traffic Safety Laws, New .....	219
Veneral Disease Bureau, New Head of .....	551
War and Health .....	592
Vacation Land, Indiana— (Shanklin) .....	274
Vanderburgh County Society Sponsors Postgraduate Conference on Obstetrics.....	389
Voice of Medicine and Correspondence:	
Baby Shows (Willson) .....	549
Dr. Austin Visits California (Austin) .....	148
Dr. Cassady's Views of California (Cassady) ..	148
Decalcomaniacs (Poland) .....	220

## DEATHS

Ackerman, Charles L. ....	95
Andrews, Ellis H. ....	435
Annis, Eber L. ....	41
Badger, Charles L. ....	151
Barnfield, John H. ....	642
Bassett, Clarence C. ....	286
Beall, Charles M. ....	42
Beck, William S. ....	642
Best, William P. ....	42
Biddle, Frank M. ....	552
Bird, Joseph E. ....	42
Blossom, John C. ....	41
Brown, Archie S. ....	286
Caffee, Amos H. ....	151
Cardwell, David T. ....	42
Chambers, Benjamin F. ....	393
Cleveland, William F. ....	642
Cooper, John W. ....	151
Crumpacker, Chester B. ....	41
Culver, Thomas M. ....	593
Current, Orpheus E. ....	435
Custer, Andrew T. ....	714
Danner, Rufus J. ....	593
Davis, William M. ....	286
DeLancey, Sheldon S. ....	151
Donnelly, James E. ....	393
Doughty, Lenore Leeds .....	593
Douglas, John E. ....	641
Duenweg, Rudolph .....	642
Eastman, Fred P. ....	435
Englerth, Perry O. ....	714
Ewell, Wardlaw .....	286
Fankboner, William A. ....	552
Fargher, James H. ....	552
Ferguson, William G. ....	552
Flack, Orra M. ....	286
Flavien, Edward B. ....	593
Ford, Oliver P. M. ....	714
Foxworthy, Frank W. ....	287
Freeman, James F. ....	286
Fulkerson, Clarence D. ....	714
Funk, Austin .....	715
Geary, John K. ....	435
Graham, Nathan P. ....	41
Grandstaff, John C. ....	286
Grayston, Charles E. ....	286
Grim, George B. ....	593
Haggard, Ernest M. ....	714
Hammersley, W. L. ....	642
Harold, Frank L. ....	714
Harris, Robert W. ....	393
Hatch, H. S. ....	42

Held, Henry W.	552
Holland, James E. P.	95
Holtzendorff, Henry C.	552
Jennings, Caswell H.	95
Johnson, Austin S.	435
Johnson, Roy W.	593
Jones, C. Agnes (McMahan)	340
Julian, Edward T.	222
Keeney, Bayard G.	642
Kelly, John C.	287
Kelsay, Clarence	151
Knight, Everett D.	552
Ladd, Franklin B.	287
LeMaster, Ralph	151
Lewis, James F.	95
Lipes, Ulysses G.	42
Lockhart, Archibald S.	287
Macbeth, Harriet S.	286
Mack, William C.	714
Magenheimer, Edgar F.	41
Marchand, Victor H.	286
Martin, George F.	714
McFadden, Walter C.	641
Miller, Charles E.	714
Miltimore, Ira	222
Moss, James K.	714
Mugg, Henry M.	642
Munns, Clyde J.	714
Murray, Ralph V.	340
Neifer, Frank J.	287
Nichols, Henry A.	42
Norrel, James R.	552
O'Brien, Bertrand M.	340
O'Brien, Cecil B.	593
Ogle, Albert	714
Olson, Oliver S.	642
Paddock, Charles A.	151
Parramore, James O.	151
Peckinpaugh, George R.	222
Peffer, Harry C.	222
Phares, Henry E.	642
Reed, John H.	222
Reese, George B.	287
Renner, Maly E.	42
Ringle, Thomas F.	222
Ritter, John A.	714
Ross, James C.	340
Ryan, Charles D.	151
Sarber, Wallace C.	286
Schoier, Charles O.	714
Schreiber, Adam W.	340
Seaman, Joseph B.	393
Severin, Louis	151
Shadday, Elmer D.	95
Spink, Mary A.	593
Stanfield, William V.	95
Stephenson, Richard	593
Taggart, Robert S.	393
Thomas, Martha V.	95
Trook, Edwin M.	286
Truelove, August O.	552
Turner, Thomas S.	287
Veach, Patrick H.	593
Wagner, Martin L.	41
Williams, John M.	222
Winter, Emil	95
Woolery, John S.	151
Wright, Carl H.	41
Young, Franklin	222
Zimmerman, Robert E.	222

## BOOKS

(Acknowledged and Reviewed)

## AUTHORS

Aaron, Harold. Our Common Ailment, Constipation: Its Cause and Cure	May xxi
Adair, F. L. Maternal Care and Some Complications	597
Adams, F. D. and Cabot, Richard C. Cabot's Physical Diagnosis	March xxvi
Alvis, Bennett Y. and Wiener, Meyer. Surgery of the Eye	Sept. xxx
A.M.A. Annual Reprint of the Reports of the Council on Pharmacy and Chemistry	598
A.M.A. New and Nonofficial Remedies, 1939	598
Andrews, George C. Diseases of the Skin	May xxii
Armstrong, Barbara N., Health Insurance Doctor	Dec. xxii
Barborka, Clifford J. Treatment By Diet	Aug. xx
Beaumont, G. E. and Dodds, E. C. Recent Advances in Medicine	Aug. xx
Billings, Edward G. A Handbook of Elementary Psychobiology and psychiatry	597
Bing, Robert. Textbook of Nervous Diseases	Dec. xxiv
Bogue, Benjamin N. Stammering. Its Cause and Correction	597
Bowen, Rev. J. R. Baptism of the Infant and the Fetus	597
Boyd, Linn J. and Scherf, David. Cardiovascular Diseases. Their Diagnosis and Treatment	Sept. xxx
Burman, Herman J. and Imperatori, Charles J. Diseases of the Nose and Throat	Aug. xx
Buschke, Franz and Cutler, Max. Cancer—Its Diagnosis and Treatment	April xxvii
Cabot, Richard C. and Adams, F. D. Cabot's Physical Diagnosis	March xxvi
Callender, C. Latimer. Surgical Anatomy	July xix
Cantarow, Abraham and Trumper, Max. Clinical Biochemistry	July xx
Carter, Charles F. Microbiology and Pathology	597
Chideckel, Maurice. Sleep Your Life's One Third	June xxi
Christopher, Frederick (Ed.). A Textbook of Surgery: By American Authors	July xix
Colwell's Daily Log for Physicians	Dec. xxiii
Crownhart, J. G. Sickness Insurance in Europe	Feb. xxviii
Curtis, Arthur Hale. A textbook of Gynecology	46
Cutler, Max and Buschke, Franz. Cancer—Its Diagnosis and Treatment	Apr. xxvii
DeLee, Joseph B. Principles and Practice of Obstetrics	Feb. xxvii
Dick, George F. and Dick, Gladys Henry. Scarlet Fever	Feb. xxvii
Dick, George F. (Ed.) The 1938 Year Book of General Medicine	March xxvi
Dickson, Frank D. and Diveley, Rex. L. Functional Disorders of the Foot	Sept. xxx
Diveley, Rex. L. and Dickson, Frank D. Functional Disorders of the Foot	Sept. xxx
Dodds, E. C. and Beaumont, G. E. Recent Advances in Medicine	Aug. xx
Dooley, M.D. (Ed.) Intern's Handbook	May xxi
Eisendrath, Daniel N. and Rolnick, Harry C. Urology	45
Ellsworth, Marion. Cancer of the Breast and Cancer of the Uterus	July xix
Emerson, Charles P. and Reed, Jewett V. The Relation Between Injury and Disease	45
Fishbein, Morris. Do You Want to Become a Doctor?	597
Flagg, Paluel J. The Art of Anesthesia	Sept. xxx
Fluhman, C. Frederic. Menstrual Disorders	July xx
Geiger, J. C. Health Officer's Manual	July xx
Greenhill, J. P. Office Gynecology	597
Hearing. Proceedings of the Nineteenth Annual Meeting of The American Society for the Hard of Hearing	Mar. xxvi



Hertzler, Arthur E. Surgical Pathology of the Diseases of the Mouth and Jaws.....Mar. xxvi  
 Imperatori, Charles J. and Burman, Herman J. Diseases of the Nose and Throat.....Aug. xx  
 Kaplan, Ira I., and Sidney Rubenfeld. Topographic Atlas for X-ray Therapy.....Dec. xxiii  
 Karsner, Howard T. Human Pathology.....May xxi  
 Katsainos, George M. Syphilis And Its Accomplices in Mischief: Society, The State and the Physician.....Aug. xx  
 Krafft-Ebing, Richard von. Psychopathia Sexualis.....Dec. xxiii  
 Landis, Carney and Page, James D. Modern Society and Mental Disease.....May xxii  
 Lewis, George M., and Mary E. Hopper. Introduction to Medical Mycology.....Dec. xxiv  
 Liljencrantz, Eric (Ed.) Cancer Handbook of the Tumor Clinic, Stanford University School of Medicine.....July xix  
 Mahorner, Howard and Ochsner, Alton. Varicose Veins.....Aug. xx  
 Magnuson, Paul B. Fractures.....Dec. xxiii  
 Maric, Joseph S. F. English, German, French, Italian, Spanish Medical Vocabulary and Phrases.....June xxi  
 Maxson, Louis H. Spinal Anesthesia.....May xxi  
 May, Charles H. and Perera, Charles A. Manual of Diseases of the Eye.....Aug. xx  
 McNally, Wm. D. Medical Jurisprudence and Toxicology.....July xx  
 Montague, J. F. How To Conquer Constipation.....Apr. xxvii  
 Muncie, Wendell. Psychobiology and Psychiatry.....Dec. xxiv  
 Murphy, Wm. P. Anemia in Practice.....July xix  
 Ochsner, Alton and Mahorner, Howard. Varicose Veins.....Aug. xx  
 Perera, Charles A. and May, Charles H. Manual of Diseases of the Eye.....Aug. xx  
 Page, James D. and Landis, Carney. Modern Society and Mental Diseases.....May xxii  
 Parkinson, Roy H. Eye, Ear, Nose and Throat Manual for Nurses.....597  
 Pelouze, P. S. Gonorrhea in the Male and Female.....June xxi  
 Piersol, George M. (Ed.) The New International Clinics. Vol. IV, New Series one, (Old 48th) 1938.....May xxi  
 Piersol, George M. (Ed.) The New International Clinics. Vol. III, New Series two, 1939.....597  
 Reed, Jewett V. and Emerson, Charles P. The Relation Between Injury and Disease.....45  
 Rice, Thurman B. Textbook of Applied Microbiology and Pathology.....June xxi  
 Richards, Lyman G. Otolaryngology in General Practice.....Sept. xxx  
 Riesman, David. Medicine in Modern Society.....Apr. xxvi  
 Robinson, Harry M. Practical Dermatology and Syphilis.....June xxi  
 Roe, Joseph H. Principles of Chemistry.....597  
 Rolnick, Harry C. and Eisendrath, Daniel N. Urology.....45  
 Rubenfeld, Sidney, and Ira I. Kaplan. Topographic Atlas for X-ray Therapy.....Dec. xxiii  
 Rypins, Harold, Medical State Board Examinations.....Aug. xx  
 Scherf, David and Boyd, Linn J. Cardiovascular Diseases. Their Diagnosis and Treatment.....Sept. xxx  
 Scudder, Charles L. Treatment of Fractures.....Feb. xxvii  
 Sheehan, J. Eastman. Manual of Reparative Plastic Surgery.....Feb. xxviii  
 Spicer, Frank W., Trauma and Internal Disease.....Dec. xxiii  
 Stepp, W. The Vitamins and Their Clinical Applications.....May xxi  
 Sutton, Richard L. and Sutton, Richard L., Jr. Diseases of the Skin.....597  
 Trumper, Max and Cantarow, Abraham. Clinical Biochemistry.....July xx  
 Vaughan, Warren T. Primer of Allergy.....Dec. xxiii

Walton, Robert P. Marihuana.....Apr. xxvii  
 Wechsler, Israel S. A Textbook of Clinical Neurology.....July xx  
 Wiener, Meyer and Alvis, Bennett Y. Surgery of the Eye.....Sept. xxx  
 Wolf, William. Endocrinology in Modern Practice.....July xx  
 Zahorsky, John. Synopsis of Pediatrics.....Dec. xxiii

# SUBJECTS (r—book reviewed)

Allergy, Primer of (Vaughan), C. V. Mosby Co. ....Dec. xxiii  
 American Society for the Hard of Hearing, Proceedings of the Nineteenth Annual Meeting of the (r) .....Mar. xxvi  
 Anatomy, Surgical (Callender), W. B. Saunders Co. ....July xix  
 Anemia in Practice (Murphy), W. B. Saunders Co. ....July xix  
 Anesthesia, The Art of (Flagg), J. B. Lippincott Co. ....Sept. xxx  
 Anesthesia, Spinal (Maxson), J. B. Lippincott Co. ....May xxi  
 Baptism of the Infant and the Fetus (Bowen), The M. J. Knippel Co. ....597  
 Biochemistry, Clinical (Cantarow-Trumper), W. B. Saunders Co. ....July xx  
 Cancer—Its Diagnosis and Treatment (Cutler-Buschke), W. B. Saunders Co. ....Apr. xxvii  
 Cancer of the Breast and Cancer of the Uterus (Ellsworth), The Franklin Press .....July xix  
 Cancer Handbook of the Tumor Clinic, Stanford University School of Medicine (Liljencrantz), Stanford University Press .....July xix  
 Cardiovascular Diseases. Their Diagnosis and Treatment (Scherf-Boyd), C. V. Mosby Co. ....Sept. xxx  
 Chemistry, Principles of (Roe), C. V. Mosby Co. ....597  
 Colwell's Daily Log for Physicians for 1940. Colwell Pub. Co. ....Dec. xxiii  
 Constipation: Its Cause and Cure, Our Common Ailment (Aaron), Dodge Publishing Co. ....May xxi  
 Constipation, How to Conquer (Montague), J. B. Lippincott Co. ....Apr. xxvii  
 Council on Pharmacy and Chemistry of the A.M.A., Annual Reprint of the Reports of the (American Medical Association) (r) .....598  
 Dermatology and Syphilis, Practical (Robinson), P. Blakiston's Son & Co. ....June xxi  
 Diagnosis, Cabot's Physical (Cabot-Adams), Wm. Wood & Co. ....Mar. xxvi  
 Diet, Treatment By (Barborka), J. B. Lippincott Co. ....Aug. xx  
 Disease, The Relation Between Injury and (Reed-Emerson), Bobbs-Merrill Co. (r) .....45  
 Do *or*, Do You Want to Become A (Fishbein), Frederick A. Stokes Co. (r) .....597  
 Endocrinology in Modern Practice (Wolf), W. B. Saunders Co. ....July xx  
 Examinations, Medical State Board (Rypins), J. B. Lippincott Co. ....Aug. xx  
 Eye, Manual of Diseases of the (May-Perera), Wm. Wood & Co. ....Aug. xx  
 Eye, Surgery of the (Wiener-Alvis), W. B. Saunders Co. ....Sept. xxx  
 Eye, Ear, Nose and Throat Manual for Nurses (Parkinson), C. V. Mosby Co. ....597  
 Foot, Functional Disorders of the (Dickson-Diveley), J. B. Lippincott Co. ....Sept. xxx  
 Fractures (Magnuson), J. B. Lippincott Co. ....Dec. xxiii  
 Fractures, Treatment of (Scudder), W. B. Saunders Co. ....Feb. xxvii  
 Gonorrhea in the Male and Female (Pelouze), W. B. Saunders Co. ....June xxi  
 Gynecology, Office (Greenhill), The Year Book Publishers, Inc. ....597  
 Gynecology, A Textbook of (Curtis), W. B. Saunders Co. (r) .....46  
 Health Insurance Doctor (Armstrong), Princeton Univ. Press .....Dec. xxiii

- Health Officers' Manual (Geiger), W. B. Saunders Co. ----- July xx
- Infant and the Fetus, Baptism of the (Bowen), The M. J. Knippel Co. ----- 597
- Injury and Disease, The Relation Between (Reed-Emerson), Bobbs-Merrill Co. (r) ----- 45
- Insurance in Europe, Sickness (Crownhart), Crownhart ----- Feb. xxviii
- International Clinics, The New. Vol. IV, New Series one (old 48th) 1938 (Piersol), J. B. Lippincott Co. ----- May xxi
- International Clinics, The New. Vol. III, New series two, 1939 (Piersol), J. B. Lippincott Co. ----- 597
- Intern's Handbook (Dooley), J. B. Lippincott Co. ----- May xxi
- Jaws, Surgical Pathology of the Diseases of the Mouth and (Hertzler), J. B. Lippincott Co. Mar. xxvi
- Jurisprudence and Toxicology, Medical (McNally), W. B. Saunders Co. ----- July xx
- Manual, Health Officers' (Geiger), W. B. Saunders Co. ----- July xx
- Marijuana (Walton), J. B. Lippincott Co. ----- Apr. xxvii
- Maternal Care and Some Complications (Adair), University of Chicago Press ----- 597
- Medical Vocabulary and Phrases, English, German, French, Italian, Spanish (Marie), P. Blakiston's Son, Inc. ----- June xxi
- Medicine in Modern Society (Riesman), Princeton University Press (r) ----- Apr. xxvi
- Medicine, Recent Advances in (Beaumont-Dodds), P. Blakiston's Son, Inc. ----- Aug. xx
- Medicine, The 1938 Year Book of General (Dick), The Year Book Publishers ----- Mar. xxvi
- Menstrual Disorders (Fluhman), W. B. Saunders Co. ----- July xx
- Mental Diseases, Modern Society and (Landis-Page), Farrar & Rinehart, Inc. (r) ----- May xxii
- Microbiology and Pathology (Carter), C. V. Mosby Co. ----- 597
- Microbiology and Pathology, Textbook of Applied, (Rice), The Macmillan Co. ----- June xxi
- Mouth and Jaws, Surgical Pathology of the Diseases of the (Hertzler), J. B. Lippincott Co. Mar. xxvi
- Mycology. Introduction to Medical (Lewis-Hopper), Year Book Pubrs. ----- Dec. xxiv
- Nervous Diseases, Textbook of (Bing), C. V. Mosby Co. ----- Dec. xxiv
- Neurology, A Textbook of Clinical (Wechsler), W. B. Saunders Co. ----- July xx
- New and Nonofficial Remedies, 1939 (A.M.A.) (r) ----- 598
- Nose and Throat, Diseases of the (Imperatori-Burman), J. B. Lippincott Co. ----- Aug. xx
- Obstetrics, Principles and Practice of (DeLee), W. B. Saunders Co. (r) ----- Feb. xxvii
- Otolaryngology in General Practice (Richards), The Macmillan Co. ----- Sept. xxx
- Pathology, Microbiology and (Carter), C. V. Mosby Co. ----- 597
- Pathology, Human (Karsner), J. B. Lippincott Co. ----- May xxi
- Pathology, Textbook of Applied Microbiology and (Rice), The Macmillan Co. ----- June xxi
- Pathology of the Diseases of the Mouth and Jaws, Surgical (Hertzler), J. B. Lippincott Co. Mar. xxvi
- Pediatrics, Synopsis of (Zahorsky), C. V. Mosby Co. ----- Dec. xxiii
- Physical Diagnosis, Cabot's (Cabot-Adams), Wm. Wood & Co. (r) ----- Mar. xxvi
- Psychiatry, A Handbook of Elementary Psychology and (Billings), The Macmillan Co. ----- 597
- Psychobiology and Psychiatry (Muncie), C. V. Mosby Co. ----- Dec. xxiv
- Psychobiology and Psychiatry, A Handbook of Elementary (Billings), The Macmillan Co. ----- 597
- Scarlet Fever (Dick-Dick), Year Book Publishers ----- Feb. xxvii
- Sexualis, Psychopathia (Kraft-Ebing), Pioneer Publications ----- Dec. xxiii
- Skin, Diseases of the (Andrews), W. B. Saunders Co. (r) ----- May xxii
- Skin, Diseases of the (Sutton-Sutton), C. V. Mosby Co. ----- 597
- Sleep Your Life's One Third (Chideckel), The Saravvan House ----- June xxi
- Society, Medicine in Modern (Riesman), Princeton University Press (r) ----- Apr. xxvi
- Society and Mental Disease, Modern (Landis-Page), Farrar & Rinehart, Inc. (r) ----- May xxii
- Stammering. Its Cause and Correction (Bogue), B. N. Bogue ----- 597
- Surgery, Manual of Reparative Plastic (Sheehan), Paul B. Hoeber, Inc. ----- Feb. xxviii
- Surgery: By American Authors, A Textbook of (Christopher), W. B. Saunders Co. ----- July xix
- Syphilis, Practical Dermatology and (Robinson), P. Blakiston's Son & Co., Inc. ----- June xxi
- Syphilis. And Its Accomplices in Mischief: Society, The State and the Physician (Katsainos), Privately Printed ----- Aug. xx
- Toxicology, Medical Jurisprudence and (McNally), W. B. Saunders Co. ----- July xx
- Trauma and Internal Disease (Spicer), J. B. Lippincott Co. ----- Dec. xxiii
- Treatment by Diet (Barborka), J. B. Lippincott Co. ----- Aug. xx
- Urology (Eisendrath-Rolnick), J. B. Lippincott Co. ----- 45
- Varicose Veins (Ochsner-Mahorner), C. V. Mosby Co. ----- Aug. xx
- Vitamins and Their Clinical Applications, The (Stapp), The Vitamin Products Co. ----- May xxi
- Vocabulary and Phrases, English, German, French, Italian, Spanish Medical (Marie), P. Blakiston's Son, Inc. ----- June xxi
- X-ray Therapy, Topographic Atlas for (Kaplan), Year Book Publishers ----- Dec. xxiii
- Year Book of General Medicine, The 1938 (Dick), Year Book Publishers ----- Mar. xxvi

#### SOCIETIES AND INSTITUTIONS

- County Society Reports ----- 47, Feb. xxii, 164, 230  
June xix, 400, Aug. xix, Oct. xix, Nov. xix, Dec. xx
- Indiana State Board of Health ----- 50, 154, May xxi,  
348, 400, Sept. xxxiv, Oct. xx, 647, Dec. xxiv
- Indiana State Medical Association:
- Bureau of Publicity ----- 347, 398, 443, 511
  - Council ----- 155, 497, 647
- District Societies:
- First ----- 280, 401
  - Second ----- 280, 401
  - Third ----- 280
  - Fourth ----- 280
  - Fifth ----- 280, 401
  - Sixth ----- 280, 401
  - Seventh ----- 281
  - Eighth ----- 281, 342, 402
  - Ninth ----- 281
  - Tenth ----- 281
  - Eleventh ----- 226, 281, 402
  - Twelfth ----- 281, July xix
  - Thirteenth ----- 281
- Executive Committee -----  
99, 291, 345, 440, 501, Oct. xxi, 671, 719
- General Meetings ----- 669
- House of Delegates ----- 651, 660
- Section on Anesthesia ----- 669
- Section on Medicine ----- 669
- Section on Surgery ----- 670
- Woman's Auxiliary to the Indiana State Medical Association ----- 46, Feb. xxvi,  
Apr. xxii, 295, 348, Sept. xxix, Oct. xx, 673, 720

#### NEWS NOTES

- Indiana University News Notes -----  
45, 98, 227, 289, 343, 395, 438, 596, 645, 718
- News Notes -----  
42, 95, 152, 223, 287, 340, 393, 435, 552, 595, 643, 715



**Woman's Auxiliary**

(Continued from page 720)

profession to all organizations which look to the advancement of health education." Suggested ways: Acquaint the public with means to acquire authentic information on health by literature from the A.M.A., and the National Department of Health Education, through sample copies of *Hygeia*, speakers from state and county medical speakers' bureaus, exhibits provided by A.M.A. or local auxiliary units. Present aims and attitudes of the medical profession on the national health issues by disseminating information on the disadvantages which may result from socialization of medicine; also the attitude of the A.M.A. toward proposals of the National Health Conference and provisions of the Wagner Health Bill. This may be accomplished through a public relations tea with official delegates from women's organizations as guests. Cooperate with local medical societies and the superintendent of schools in providing programs on health for grade and high schools.

Mrs. Edgar Mendenhall, program chairman, announced the slogan, "Every Doctor's Wife a Stepping Stone for the Medical Profession." Suggested Programs: Legislative—study groups of members, or speakers for members from county speakers' bureau on federal and state legislation; Public Relations—teas with guests from lay organizations, dramatizations of medical history in counties (or medical persons or institutions); Educational—symposium or speakers on public welfare and preventive medicine. Social—book reviews, guest teas, bridge, and sewing for philanthropic purposes.

Mrs. F. B. Wishard, organization chairman, plans: contact with every medical society and try to secure places on programs to present auxiliary work; also contact key women in each county; assist in organizing new units when consent is obtained; supply new units with literature and state plan on procedure.

Mrs. John Emhardt, *Hygeia* chairman, announced as state slogan for the national contest: "*Hygeia* Everywhere." The national contest began October 1, 1939, and ends January 31, 1940. Cash prizes totaling \$300 will be given to winning county and state auxiliaries. To make Indiana a winner, she urged that *Hygeia* be placed in every school, library, doctor's waiting room, and other centers. It is suggested that each county auxiliary designate a definite day during the contest as *Hygeia* Day when a special effort is made to obtain subscriptions. Auxiliaries should raise money and use commissions from subscriptions to place *Hygeia* where it is needed.

MRS. CLIFFORD TAYLOR,  
*Press and Publicity Chairman.*

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PAGE 698

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## LOCAL SOCIETY REPORTS

**Carroll County Medical Society** members held a meeting October twenty-sixth at the home of Dr. and Mrs. H. Y. Mullin in Rockfield.

\* \* \*

**Daviess-Martin and Pike County Medical Society** (Tri-County Medical Association) members held a dinner meeting at Otwell, October twenty-fourth.

\* \* \*

**Dearborn-Ohio County Medical Society** held a meeting in Lawrenceburg, October twenty-sixth. A paper on "Cardiac Arrhythmias" was presented by Dr. D. P. Osborn of Cincinnati. Attendance numbered twelve.

\* \* \*

**Fayette-Franklin County Medical Society** met on Tuesday, November fourteenth, with Dr. Cleon Nafe of Indianapolis as guest speaker. Dr. Nafe's subject was "Some Aspects of Thyroid Surgery".

\* \* \*

**Floyd County Medical Society** members met in New Albany, October thirteenth, for a dinner meeting. Dr. Parvin M. Davis of New Albany presented a paper on "Tetanus and Gas Gangrene."

At the November tenth meeting of the society, Dr. Thomas M. Hewlett of New Albany talked on "Surgical Treatment of Uterine Prolapse." Attendance numbered thirteen.

\* \* \*

**Fort Wayne (Allen County) Medical Society** members met in the Chamber of Commerce Building, October twenty-fourth. Papers were presented by Dr. D. F. Cameron on "Carcinoma of the Cecum," Dr. H. V. Scott on "Nephrosis in Children," and Dr. P. L. Stier on "Trichinosis." Attendance numbered thirty-nine.

At the October seventeenth meeting of the Fort Wayne Society in the Chamber of Commerce Building, Dr. Emor L. Cartwright presented a paper on "Problems in Proctology." Attendance numbered forty-six.

At the November seventh meeting, Drs. William C. Wright, Charles J. Cooney and A. J. Sparks presented a symposium on "Urinary Infections." Attendance numbered forty-four.

\* \* \*

**Fountain-Warren County Medical Society** members held a meeting November second at Mudlavia Sanitarium in Kramer. Dr. Carl S. Williamson of Danville, Illinois, was the guest speaker, his subject being "Anatomy of and Ano Rectal Fistula Pathology." Attendance numbered twenty-three.

\* \* \*

**Greene County Medical Society** met at the Freeman Greene County Hospital in Linton, October nineteenth. Drs. W. G. Crawford and S. R. Combs of Terre Haute discussed the Treatment of Pulmonary

Tuberculosis by Pneumothorax. Dinner was served at the hospital by the nursing staff.

\* \* \*

**Greene County Medical Society** members met at the Freeman Greene County Hospital, November sixteenth, for a general business meeting. Dinner was served by the nursing staff of the hospital.

\* \* \*

**Gibson County Medical Society** met at the Emerson Hotel in Princeton for a dinner meeting, November thirteenth. Dr. Max Cutler of Chicago was the guest speaker, and his subject was "Cancer, Its Diagnosis and Treatment." Attendance numbered forty.

\* \* \*

**Indianapolis (Marion County) Medical Society** held its regular meeting at the Indianapolis Athletic Club, November seventh. Dr. James S. McLester, ex-president of the American Medical Association and professor of medicine at the University of Alabama, was guest speaker. His subject was "Nutrition and Present Day Living."

"Information Please" was the subject for the meeting held November fourteenth. Drs. William E. King, James O. Richey, M. R. Shafer, R. A. Solomon and Harold F. Dunlap conducted a program on "Diseases of Metabolism."

\* \* \*

**Jasper-Newton County Medical Society** members met at the home of Dr. F. L. Morehouse in Morocco, October twenty-sixth, to hear Dr. Carl Huber of Indianapolis talk on "Toxemias of Pregnancy." Three motion picture films were shown. Attendance numbered eleven.

\* \* \*

**Jay County Medical Society** held its regular meeting at the Portland Country Club, November second.

\* \* \*

**LaPorte County Medical Society** members held a meeting at the Hotel Spaulding, in Michigan City, November sixteenth. Dr. Earl Walker of Chicago presented a paper on "Early Manifestations of Intracranial Lesions." Attendance numbered twenty-seven.

\* \* \*

**Montgomery County Medical Society** held a meeting at Culver Hospital, October nineteenth, with Dr. Carl Huber of Indianapolis as guest speaker. Attendance numbered twenty-nine.

\* \* \*

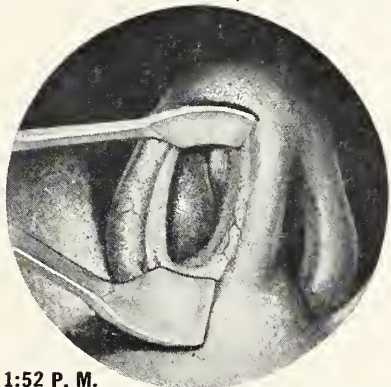
**Muncie Academy of Medicine** opened its twenty-fifth season with a dinner meeting at the Hotel Roberts, October thirty-first. Dr. A. C. Corcoran of Indianapolis was the guest speaker. He had as his subject "The Newer Kidney Physiology in Relation to Nephritis and Hypertension."



# Effective Lasting Shrinkage

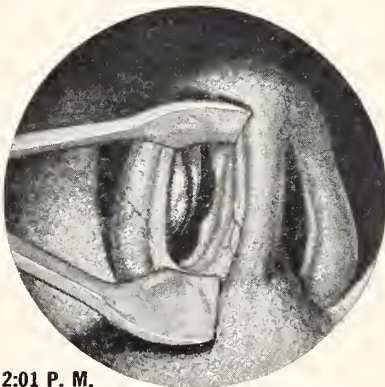
*Case History:* F. O'B. Age 23, male, white. Worker in chromic acid plant. Complained chiefly of earache and head stoppage. Observed at Nose and Throat Clinic of a Philadelphia hospital.

## EFFECTIVE IN MINUTES



1:52 P. M.

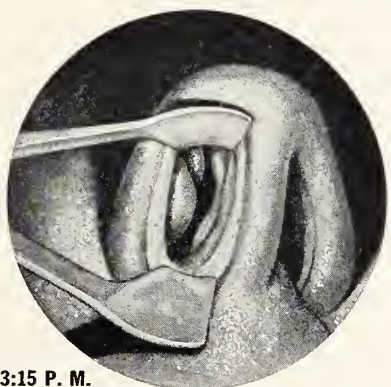
Swollen turbinates and septum. Two inhalations from 'Benzedrine Inhaler.'



2:01 P. M.

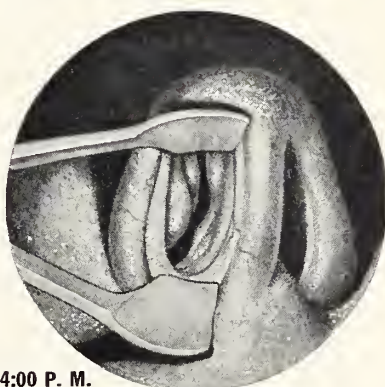
Maximum shrinkage. Inferior and middle turbinates and septum decongested.

## LASTING FOR HOURS



3:15 P. M.

Inferior turbinate and septum still shrunk. Middle turbinate exposed.



4:00 P. M.

Both turbinates still contracted. Very slight return of turgescence.

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On November fourteenth, Dr. Henry J. John of Cleveland, Ohio, was guest speaker for the Academy. Dr. John's subject was "Diabetes and the Relation to It of Some Metabolic Diseases."

The December twelfth meeting will be an open meeting, with Dr. Weston Price of Cleveland, Ohio, speaking on "Nutrition and Modern Degeneration, Physical, Mental and Moral."

\* \* \*

**Northeastern Indiana Academy of Medicine** met at the Kendall Hotel in Kendallville, November sixteenth, for a dinner meeting. Dr. Carl P. Huber of Indianapolis talked on "Bleeding in Pregnancy and Labor."

\* \* \*

**Randolph County Medical Society** members met October ninth at the Randolph County hospital in Winchester, with ten members present. The program consisted of a discussion of recent cases.

\* \* \*

**St. Joseph County Medical Society** held a meeting at South Bend, October third. Professor Frank T. Flynn of Notre Dame talked on "Today's Challenge to Medicine." An interesting and vigorous discussion followed Prof. Flynn's address. Attendance numbered fifty-five.

At the October twenty-fourth meeting, the program was presented by the staff of Healthwin Hospital. The subject was "Present Status of Tuberculosis." Thirty-eight attended.

Dr. H. L. Cooper of South Bend discussed "Diabetes Today" at the November seventh meeting of the St. Joseph County Society. This meeting was held in the LaSalle Hotel, with forty members present.

\* \* \*

**Tippecanoe County Medical Society** members met at the William Ross Sanitarium as guests of the superintendent, October seventeenth. Dr. William Tucker of Chicago was the guest speaker, his subject being "Primary Carcinoma of the Lungs." There was an attendance of forty-five at the dinner meeting and fifty-five at the evening meeting.

A tuberculosis "school" was held during the afternoon with clinicians present from various parts of the state.

The Tippecanoe County society met at Lincoln Lodge and St. Elizabeth's Hospital in Lafayette, November fourteenth. Guest speakers were Dr. John H. Warvel and Dr. E. Rogers Smith, both of Indianapolis. Dr. Warvel talked of "Diagnosis and Management of Diabetes" and Dr. Smith spoke on "Drug Addiction." Seventy attended the afternoon clinic and fifty-five attended the dinner meeting in the evening.

\* \* \*

**Wayne-Union County Medical Society** members met at the Smith-Esteb Hospital in Richmond, November ninth, to hear Dr. Richard Davison of Chicago talk on "Surgical Treatment in Pulmonary Tuberculosis."

## SILVER PICRATE *Wyeth's*

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**CONVINCING RECORD OF EFFECTIVENESS  
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*due to Neisseria gonorrhoeae*

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- |                             |                              |
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| 2. Fermentation of dextrose | 4. Agglutination test        |
| 5. Alkali solubility test   |                              |

Silver Picrate is a crystalline compound of silver in definite chemical combination with picric acid. Dosage form for use in Anterior Urethritis: Wyeth's Silver Picrate Crystals used in an aqueous solution of 0.5 percent.

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\*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelsanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

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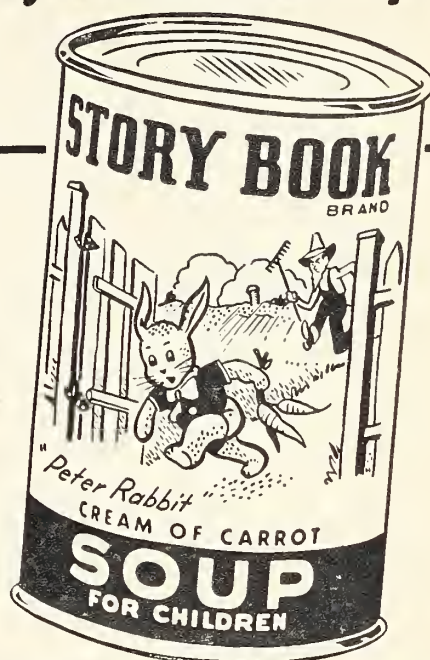
*The Three Little Pigs* Cream of Celery

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### BOOKS

**FRACTURES.** By Paul B. Magnuson, M.D., Associate Professor of Surgery, Northwestern University Medical School, Chicago. Third edition, revised and enlarged. 511 pages, with 317 illustrations. Cloth. Price \$5.00. J. B. Lippincott Co., Philadelphia, 1939.

\* \* \*

**THE HEALTH INSURANCE DOCTOR.** His Role in Great Britain, Denmark and France. By Barbara N. Armstrong. 264 pages. Cloth. Price \$3.00. Princeton University Press, Princeton, 1939.

\* \* \*

**A TOPOGRAPHIC ATLAS FOR X-RAY THERAPY.** By Ira I. Kaplan, B.S., M.D., Director Radiation Therapy Department, Bellevue Hospital, New York City; and Sidney Rubinfeld, B.S., M.D., Associate Visiting Radiation Therapist, Bellevue Hospital, New York City. 110 pages, with 55 illustrative plates. Cloth. The Year Book Publishers, Inc., Chicago, 1939.

\* \* \*

**DR. COLWELL'S DAILY LOG FOR PHYSICIANS FOR 1940.** Physicians' financial record. Colwell Publishing Co., Champaign, Illinois.

**SYNOPSIS OF PEDIATRICS.** By John Zahorsky, A.B., M.D., Professor of Pediatrics, St. Louis University School of Medicine, St. Louis, Mo.; assisted by T. S. Zahorsky, B.S., M.D., Instructor in Pediatrics, St. Louis University School of Medicine, St. Louis, Mo. Third edition. 430 pages, with 144 illustrations. Flexible binding. The C. V. Mosby Company, St. Louis, 1939.

\* \* \*

**PSYCHOPATHIA SEXUALIS.** By Richard von Krafft-Ebing, M.D., Professor of Psychiatry and Nervous Diseases, University of Vienna, with introduction and supplement by Victor Robinson, M.D., Professor of History of Medicine, Temple University School of Medicine. 626 pages. Cloth. Price \$3.00. Pioneer Publications, Inc., New York City, 1939.

\* \* \*

**TRAUMA AND INTERNAL DISEASE.** By Frank W. Spicer, A.B., M.D. 593 pages, with 43 illustrations. Cloth. J. B. Lippincott Co., Philadelphia, 1939.

(Continued on page xxiv)

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(Continued from page xxiii)

PRIMER OF ALLERGY. By Warren T. Vaughan, M.D., Richmond, Virginia, with illustrations by John P. Tillery. 140 pages. Cloth. The C. V. Mosby Company, St. Louis, 1939.

\* \* \*

AN INTRODUCTION TO MEDICAL MYCOLOGY. By George M. Lewis, M.D., Instructor in Medicine (Dermatology), Cornell University; and Mary E. Hopper, M.S., Asst. in Mycology, Skin and Cancer Unit, New York Post-Graduate Medical School and Hospital, Columbia University. 315 pages, with 71 illustrations. Cloth. The Year Book Publishers, Inc., Chicago, 1939.

\* \* \*

TEXTBOOK OF NERVOUS DISEASES. By Robert Bing, Professor of Neurology, University of Basel, Switzerland; translated and enlarged by Webb Haymaker, Asst. Clinical Professor of Neurology, University of California. From the fifth German edition. 838 pages, with 207 illustrations, including 9 in color. Cloth. The C. V. Mosby Company, St. Louis, 1939.

\* \* \*

PSYCHOBIOLOGY AND PSYCHIATRY. By Wendell Muncie, M.D., Associate Professor of Psychiatry, Johns Hopkins University. 739 pages with 69 illustrations. Cloth. The C. V. Mosby Co., St. Louis, 1939.

## INDIANA STATE BOARD OF HEALTH

### BUREAU OF COMMUNICABLE DISEASES

#### Monthly Report, September, 1939

Diseases	Sept. 1939	Aug. 1939	July 1939	Sept. 1938	Sept. 1937
Tuberculosis	141	193	172	87	185
Chickenpox	25	11	43	11	16
Measles	19	14	29	10	29
Scarlet Fever	204	91	103	143	149
Smallpox	5	3	36	14	8
Typhoid Fever	54	33	31	42	19
Whooping Cough	260	234	568	35	156
Diphtheria	67	23	30	39	42
Influenza	24	8	38	38	45
Pneumonia	33	25	25	46	26
Mumps	35	24	40	13	4
Poliomyelitis	12	4	1	1	49
Trachoma	9	6	0	0	0
Malaria	8	9	9	47	0
Rocky Mt. Spotted Fever	3	6	0	3	0
Undulant Fever	3	10	4	3	0
Bacillary Dysentery	72	0	0	0	0
Tularemia	2	0	0	0	0
Amebic Dysentery	1	0	0	0	0
Tetanus	2	0	0	0	0
Encephalitis	8	0	0	2	0

## ABSTRACTS

### TUBERCULOSIS CHRISTMAS SEAL SALES HAVE SAVED 200,000 LIVES

"Two hundred thousand persons are alive in the United States today who would have been dead of tuberculosis if last year had been 1904," *The Journal of the American Medical Association* for Nov. 18 declares.

"Since that year, which marked the inception of the National Tuberculosis Association, the mortality rate from this disease has been cut down from 201 deaths per hundred thousand of population to 49 per hundred thousand in 1938. People are now being urged to buy Christmas Seals, which help to finance the work of this association and its 2,500 affiliated organizations in all parts of the country. A part of the money derived from the sale of these seals goes into a fund which maintains a rehabilitation program for tuberculous persons in sanatoriums.

"But the real problem in fighting tuberculosis involves education: Those who have tuberculosis in its incipient stages can be cured if they are aware of their disease. In order to find these early cases, the people must be educated to look for it.

"In spite of the improvement of diagnostic methods, only 13 per cent of patients admitted to sanatoriums are found to be in the early stages of the disease, thus showing that there are far too many with unrecognized cases in the community infecting their families and neighbors. Only by finding every single case can the disease be eliminated. Early examination, skilful diagnosis and prompt treatment are the factors that make tuberculosis curable and preventable. Persons with questionable cases should be promptly examined."

### MORE BOYS THAN GIRLS HAVE ACNE

Boys are more subject to acne than girls and the severity of the eruption is considerably greater, Francis W. Lynch, M.D., St. Paul, Minn., declares in *The Journal of the American Medical Association* for Nov. 11.

From a special examination of 481 students Dr. Lynch concluded that: "There was no relation between body build and the presence of acne.

"It was noted that severe acne was slightly less common in girls with fine hair, but statistical methods indicated that the amount of variations was probably not significant. There was no relation between the color of the hair and the presence of acne."















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